



# *Tracker*

**MEASURES OF DEPARTMENTAL PERFORMANCE**

# Greetings from MoDOT



**Dave Nichols**  
MoDOT Director

## Mission

*Our mission is to provide a world-class transportation experience that delights our customers and promotes a prosperous Missouri.*

The Missouri Department of Transportation stands committed to being fully transparent and accountable in its business of preserving, managing and developing our state's transportation system. We aim to demonstrate those qualities every day. Accordingly we've seen our customer satisfaction numbers climb to 85 percent. That is an exceptionally high mark for any company but unheard of for a government agency.

It's our belief that you have a right to see how we are performing and we want you to know what we are doing well and where we need to improve. Now in its tenth year, the Tracker has been one way that Missourians can hold us accountable for delivering the most efficient and practical transportation services possible.

Missouri depends on a safe and reliable transportation system for the commerce and mobility to support economic stability and job growth. You have high expectations of us and we want to exceed those expectations. You expect us to keep the good roads maintained and safe and to fix bad roads and bridges. Most importantly, you expect us to get the absolute best value out of every tax dollar we spend. We share your expectations.

We have taken extreme measures to squeeze every dollar we can out of our operating costs to put every possible dollar back on to our system of roads and bridges. The Bolder Five-Year Direction, practical design, practical operations and a commitment to radical cost control are all examples.

But by 2017 we will have insufficient funds to take care of our roads and bridges in the manner in which our customers are accustomed. Tough choices about how and where we spend those funds will need to be made.

We have built the Tracker around seven Tangible Results. These results are outcomes that you expect to see and they guide us in making decisions every day. The performance measures in the Tracker are designed to help us focus on the progress we are making to achieve these results.

The Tracker is published quarterly to ensure accountability and to allow you to see how we are measuring up. It is available in a printed format and on our website at [www.modot.org](http://www.modot.org). We encourage you to look it over and let us know how we are doing.

Sincerely,

A handwritten signature in dark ink, appearing to read "Dave Nichols".

**Missouri Department of Transportation**

## TANGIBLE RESULTS

- *Keep Customers and Ourselves Safe*
- *Keep Roads and Bridges in Good Condition*
- *Provide Outstanding Customer Service*
- *Deliver Transportation Solutions of Great Value*
- *Operate a Reliable and Convenient Transportation System*
- *Use Resources Wisely*
- *Advance Economic Development*

## VALUE STATEMENTS

### *Live MoDOT Values -*

- *Be Safe,*
- *Be Accountable,*
- *Be Respectful,*
- *Be Inclusive,*
- *Be Bold,*
- *Be Better, and*
- *Be One Team*

***So we can be a great organization.***

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KEEP CUSTOMERS AND OURSELVES SAFE

*Eileen Rackers, State Traffic and Highway Safety Engineer*



**Tracker**

MEASURES OF DEPARTMENTAL PERFORMANCE



Safety is a daily commitment for all MoDOT employees. From design and construction to operations and maintenance of the state transportation system, the safety of our customers, partners, and employees is our top priority. We work with our safety partners to promote safe behavior for all users and modes of transportation so everyone goes home safe every day.

**RESULT DRIVER:**  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

**MEASUREMENT  
DRIVER:**  
Leanna Depue,  
Highway Safety Director

**PURPOSE OF  
THE MEASURE:**  
The fatal and serious injury  
number measures track  
quarterly, annual and five-  
year average trends result-  
ing from traffic crashes on  
all Missouri roadways. The  
rate of fatal and serious  
injury charts display annual  
and five-year average fatal-  
ity and injury rates per 100  
million vehicle miles traveled  
for these same crashes.  
In addition, the fatality rate  
chart includes the national  
average.

**MEASUREMENT  
AND DATA  
COLLECTION:**  
Missouri law enforcement  
agencies submit a vehicle  
accident report form to the  
Missouri State Highway  
Patrol to enter them into a  
statewide traffic crash data-  
base. The database auto-  
matically updates MoDOT's  
crash database system,  
which is called the Transpor-  
tation Management System.

## KEEP CUSTOMERS AND OURSELVES SAFE

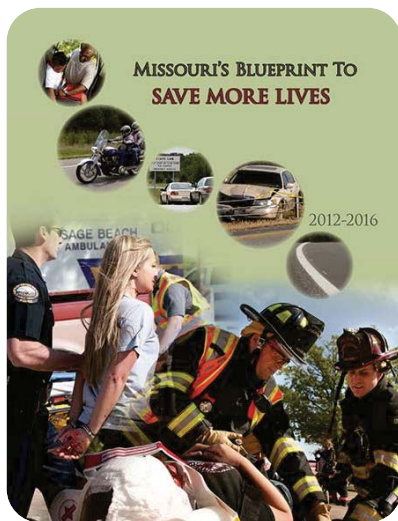
MAP-21

### *Number and rate of fatalities and serious injuries-1a*

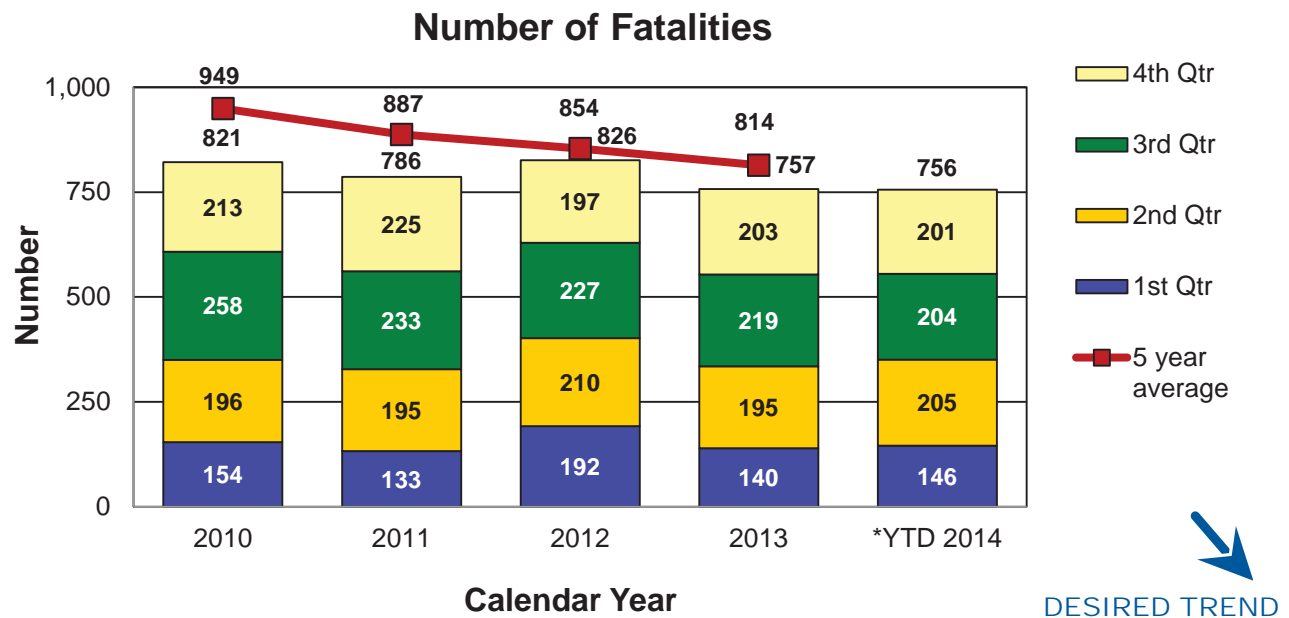
Keeping travelers safe is one of MoDOT's highest priorities. Over the last few years, fatalities and serious injuries have experienced a significant decline of 40 percent since 2005. The large decrease is due to safety improvements on Missouri roadways, focused enforcement efforts and educational campaigns that have kept these issues in front of motorists. When compared to the previous year, the 2013 traffic fatality count decreased by 8 percent to a total of 757. The five-year average continued on a downward trend to 814 in 2013.

Serious injury data for 2013 reflect a continued downward trend for both the number and five-year average of serious injuries for the eighth straight year. The 2013 fatality rate per 100 million miles traveled fell to the lowest rate on record to 1.09. In 2012, the national fatality rate per 100 million miles traveled was 1.13.

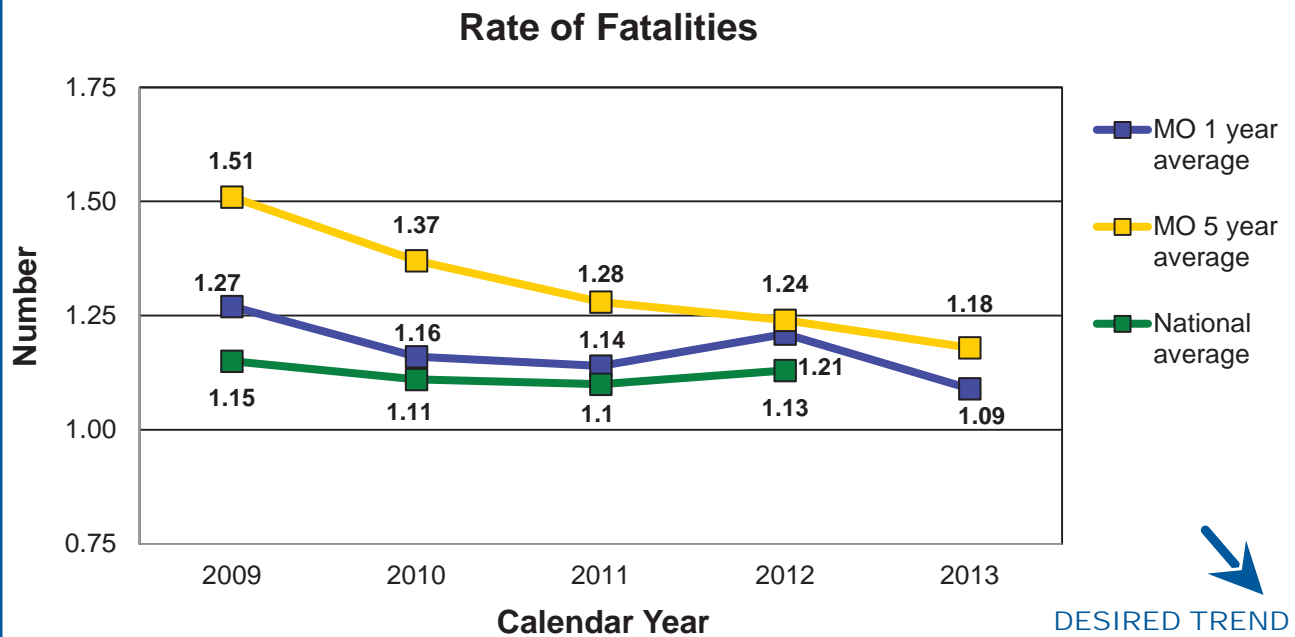
As funding levels decline, MoDOT will be challenged to deliver system-wide safety improvements.



# KEEP CUSTOMERS AND OURSELVES SAFE

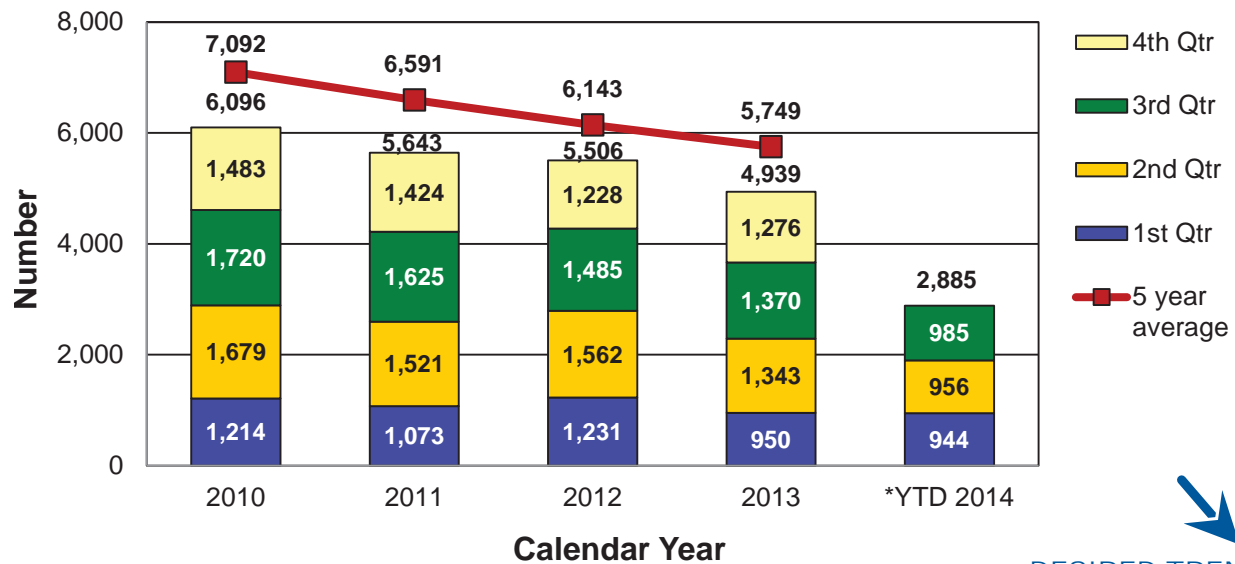


\*YTD 2014 – First, second and third quarter fatalities were derived from TMS and fourth quarter fatalities gathered using MSHP radio reports.



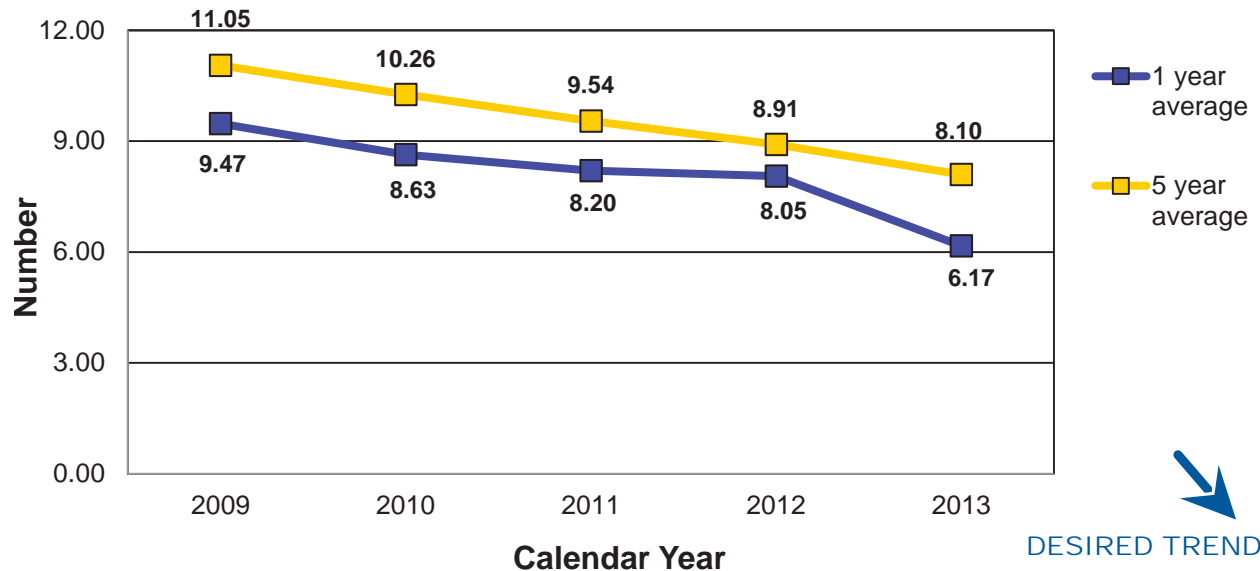
# KEEP CUSTOMERS AND OURSELVES SAFE

## Number of Serious Injuries



\*YTD 2014 - Due to a backlog of crash reports into STARS, the serious injury measure for the first, second and third quarter 2014 will only illustrate data derived from TMS. Fourth quarter 2014 data is unavailable through the MSHP radio reports.

## Rate of Serious Injuries



RESULT DRIVER:  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

MEASUREMENT  
DRIVER:  
Leanna Depue,  
Highway Safety Director

PURPOSE OF  
THE MEASURE:  
The vulnerable roadway  
user measure tracks annual  
trends in fatalities and seri-  
ous injuries of motorcyclists,  
pedestrians and bicyclists.  
These roadway users are  
most at risk for death or  
serious injury when involved  
in a motor-vehicle-related  
crash.

MEASUREMENT  
AND DATA  
COLLECTION:  
Data is collected by law  
enforcement and entered  
into the State Traffic Ac-  
cident Record System  
managed by the Missouri  
State Highway Patrol. The  
record system automatically  
updates MoDOT's Traffic  
Management System.

## KEEP CUSTOMERS AND OURSELVES SAFE

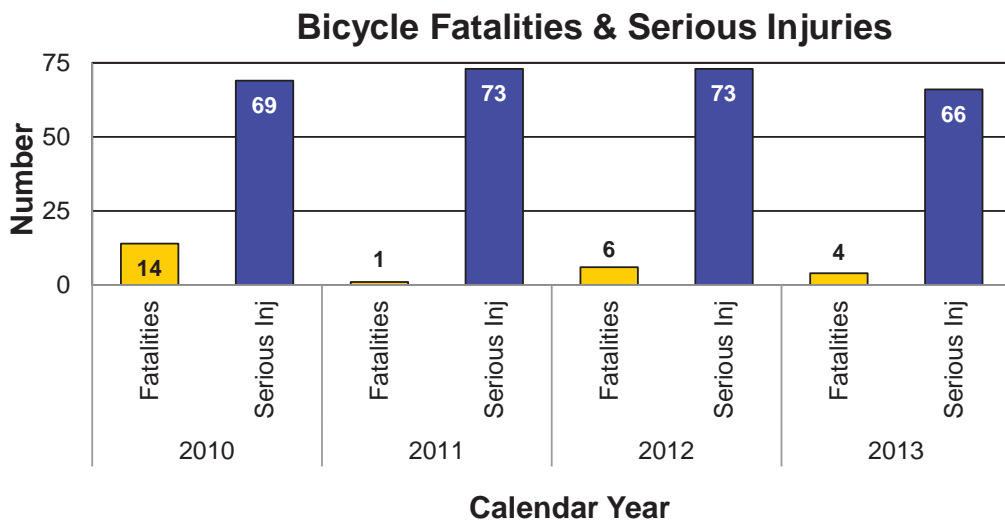
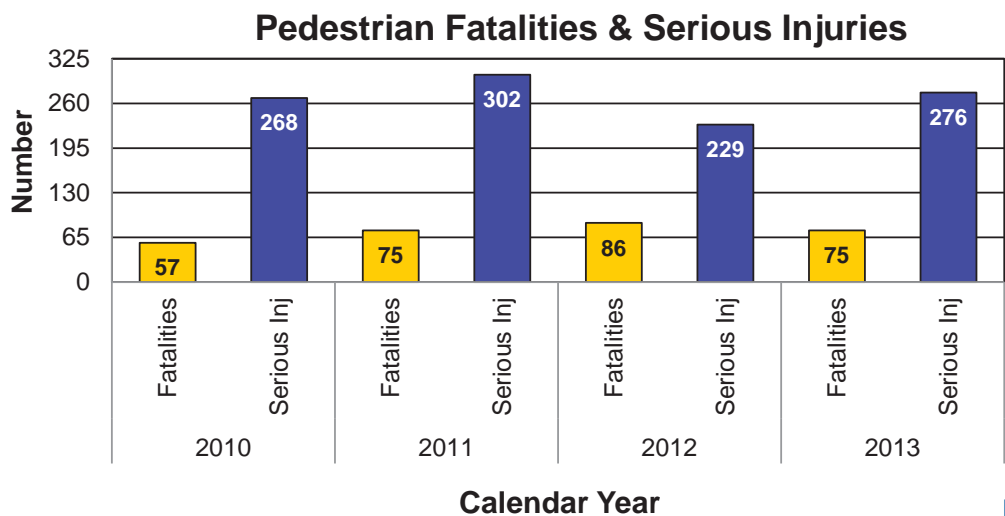
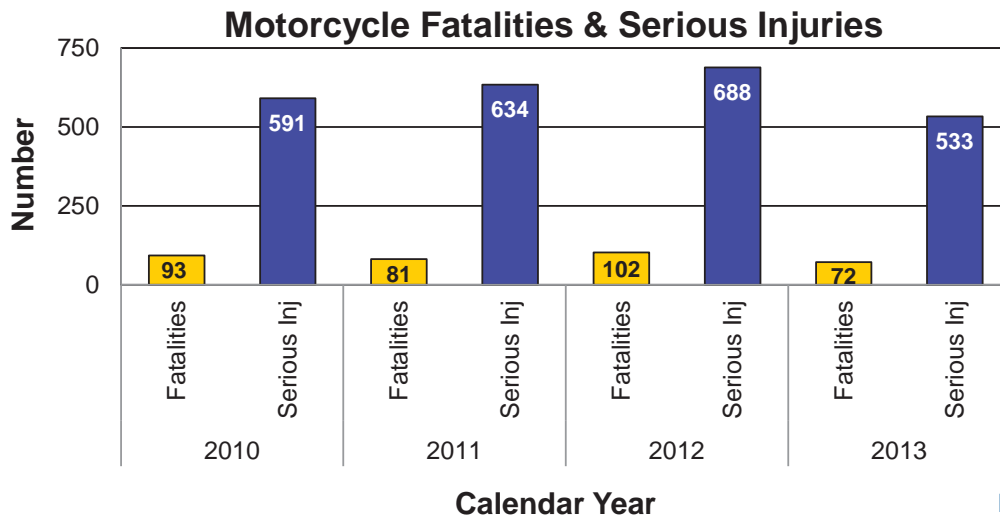
### *Number of vulnerable roadway user fatalities and serious injuries-1b*

In 2013, vulnerable roadway users were 20 percent of the total number of fatalities. Motorcycle, pedestrian, and bicycle fatalities all decreased in 2013 by 29 percent, 13 percent, and 33 percent respectively. Motorcycle fatalities in 2013 were the lowest since 2004.

Serious injury data for 2013 are still incomplete. Motorcycle and bicycle serious injuries are showing a downward trend while pedestrian serious injuries appear to have increased from 2012 to 2013.



# KEEP CUSTOMERS AND OURSELVES SAFE



**RESULT DRIVER:**  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

**MEASUREMENT  
DRIVER:**  
Mike Curtit,  
Traffic Liaison Engineer

**PURPOSE OF  
THE MEASURE:**  
This measure tracks annual trends in motor vehicle related fatal and serious injuries resulting from some of the most common contributing factors or highway features. This data represents six of the top focus areas presented in Missouri's Blueprint to Save More Lives.

**MEASUREMENT  
AND DATA  
COLLECTION:**  
Missouri law enforcement agencies submit a vehicle crash report form to the Missouri State Highway Patrol to enter them into a statewide traffic crash database. MoDOT staff query and analyze this data to determine the number of unrestrained occupants in crashes, how often aggressive driving, alcohol and other drugs contribute to crashes, and whether or not the vehicles ran off the road, or the crash occurred at an intersection or within a curve.

## KEEP CUSTOMERS AND OURSELVES SAFE

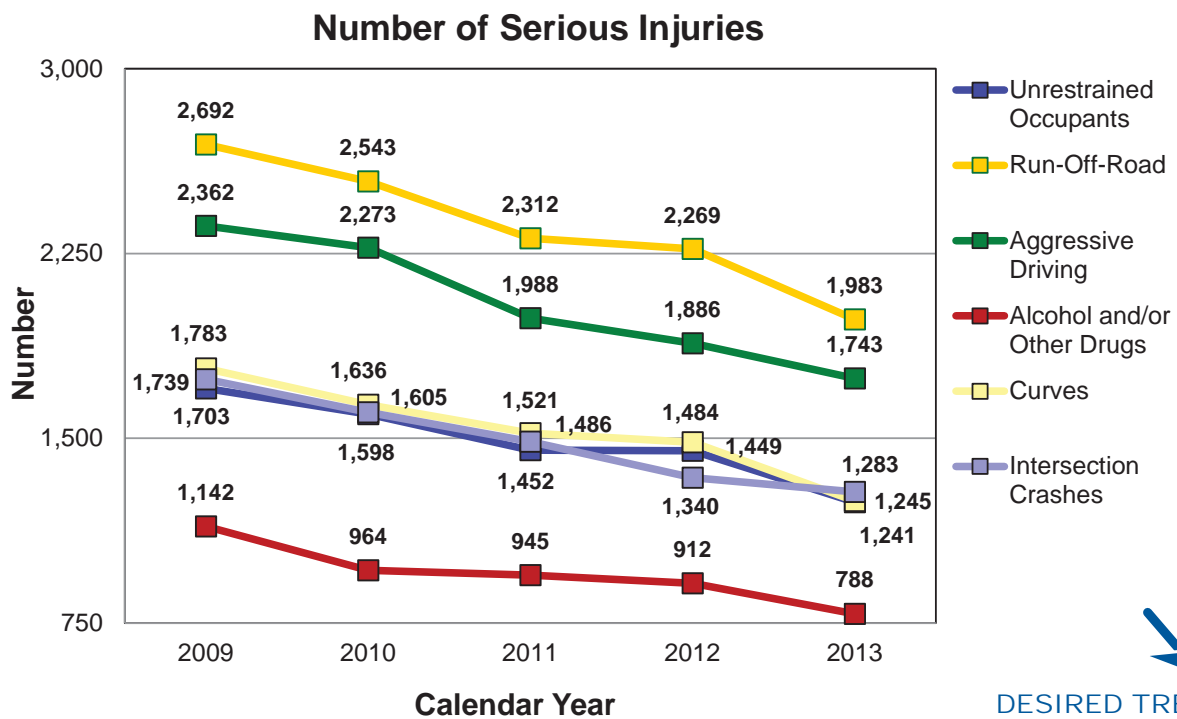
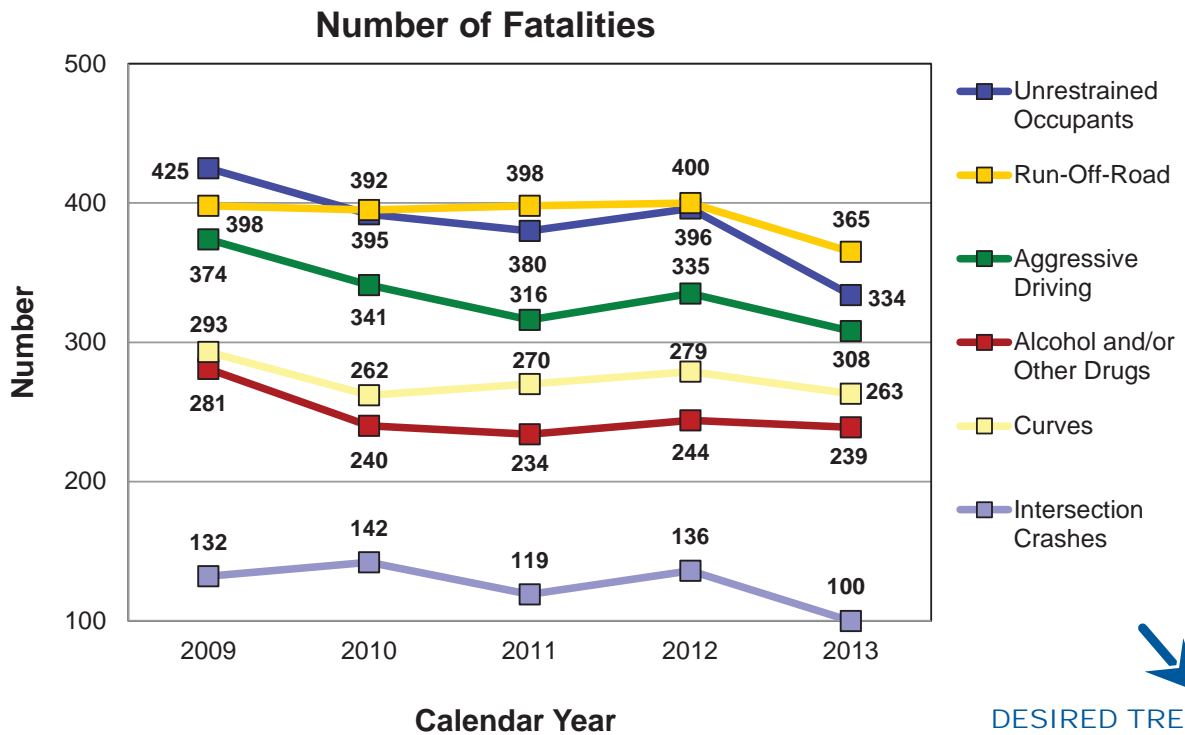
### *Number of fatalities and serious injuries resulting from the most frequent crash causes-1c*

Recording and monitoring crash data is an important part of improving safety for Missouri drivers. But without looking at the causes of these incidents, the data is nothing but numbers. Looking for the reasons why an incident occurs is MoDOT's best approach to address the problem. With that approach, the department finds the most frequent causes continue to be a mix of engineering and behavioral issues.

The general trend for both fatalities and serious injuries has declined for the last five years. Comparing the number of fatalities in 2012 to 2013 shows the following results: 16 percent reduction in unrestrained occupants, 9 percent reduction in run-off-road, 8 percent reduction in aggressive driving, 2 percent reduction in alcohol and/or other drugs, 6 percent reduction in curve related, and 26 percent reduction in intersection related. Comparing the number of serious injuries in 2012 to 2013 shows the following results: 14 percent reduction in unrestrained occupants, 13 percent reduction in run-off-road, 8 percent reduction in aggressive driving, 14 percent reduction in alcohol and/or other drugs, 16 percent reduction in curve related, and 4 percent reduction in intersection related. The safety improvements included in the Smooth Roads Initiative and Better Roads, Brighter Future programs began the downward trends in fatalities and serious injuries. With both of these programs complete and without additional resources to invest in additional system-wide safety measures, the downward trends for each of these causes will be difficult to maintain. Significant improvements to increase safety will not be possible with diminishing funding levels predicted in the next few years. The primary current initiatives include adding shoulders and rumble strips to minor roads and striping all major roads prior to Memorial Day. While driver behavior is difficult to correct, MoDOT continues to focus on using funds to target locations and behaviors based on crash data analysis.



# KEEP CUSTOMERS AND OURSELVES SAFE



**RESULT DRIVER:**  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

**MEASUREMENT  
DRIVER:**  
Julie Stotlemeyer,  
Traffic Liaison Engineer

**PURPOSE OF  
THE MEASURE:**  
An important factor in  
evaluating the safety of  
Missouri's transportation  
system includes the safety  
of work zones on the state's  
roadway system. This  
measure tracks the num-  
ber of traffic-related and  
non-traffic related fatalities,  
injuries and overall crashes  
occurring in work zones on  
state-owned roadways.

**MEASUREMENT  
AND DATA  
COLLECTION:**  
Missouri law enforcement  
agencies submit a vehicle  
accident report form to the  
Missouri State Highway  
Patrol to enter them into  
a statewide traffic crash  
database. MoDOT staff  
query and analyze this data  
to identify work zone related  
crash statistics. MSHP  
prioritizes entry of the crash  
reports by fatality, serious  
injury, minor injury and  
then property damage only.  
Currently MSHP is entering  
minor injury and property  
damage only crash reports  
for May 2014. Therefore,  
the numbers for these types  
of crashes will continue to  
change for calendar year  
2014.

## KEEP CUSTOMERS AND OURSELVES SAFE

### *Number of fatalities and serious injuries in work zones-1d*

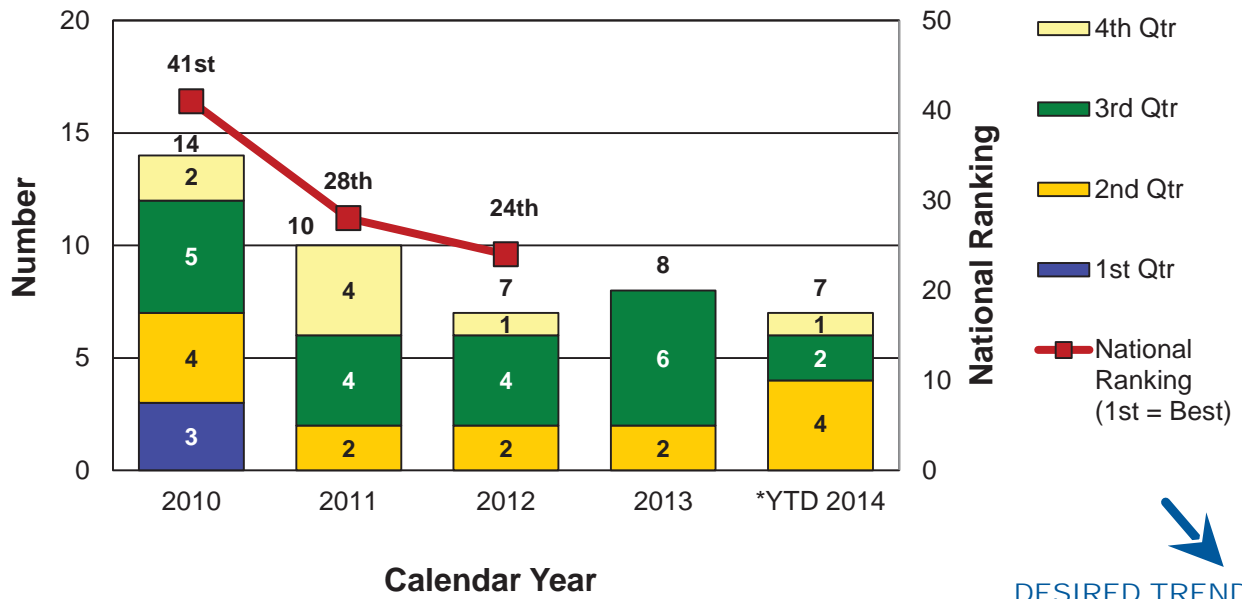
Work zone safety is at the center of MoDOT's safety culture. It is a driving force in all maintenance and construction work. Just as MoDOT expects its crews to be safe and visible, it also expects contractors to provide safe work zones and visible workers. This is demonstrated by the partnership MoDOT has with contractors using the same personal protection equipment it uses. Staying safe in work zones is also a partnership the department shares with the driving public. MoDOT wants everyone to get home safely. While MoDOT makes every effort to work safely, it is counting on motorists to pay attention, slow down and move over.

For crash reports entered to date for calendar year 2014, Missouri work zones have experienced seven fatalities and 29 serious injuries. Fifty percent of the work zone fatalities were unbuckled.

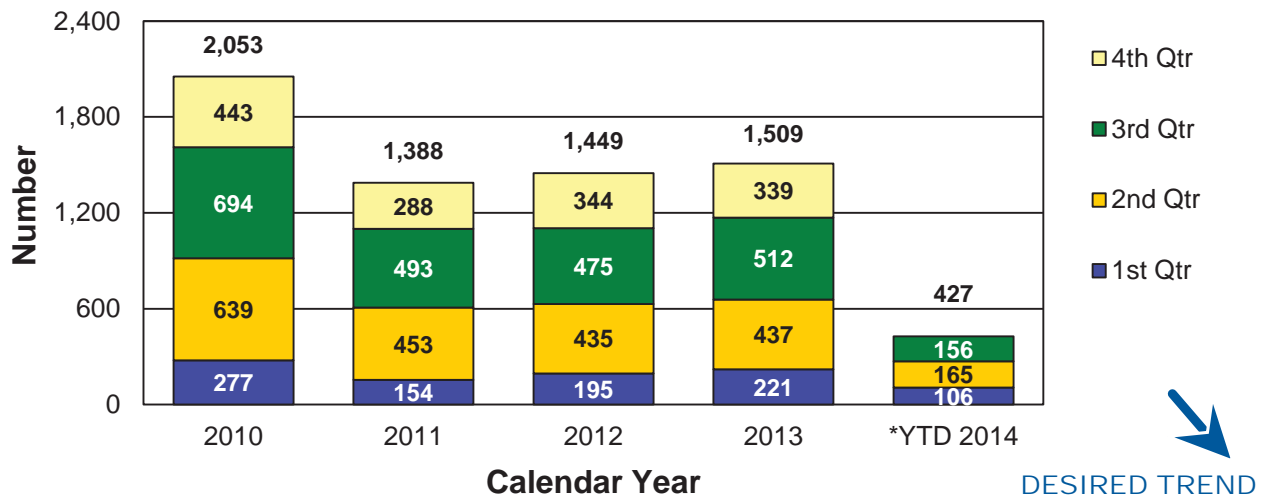


# KEEP CUSTOMERS AND OURSELVES SAFE

## Number of Fatalities in Work Zones



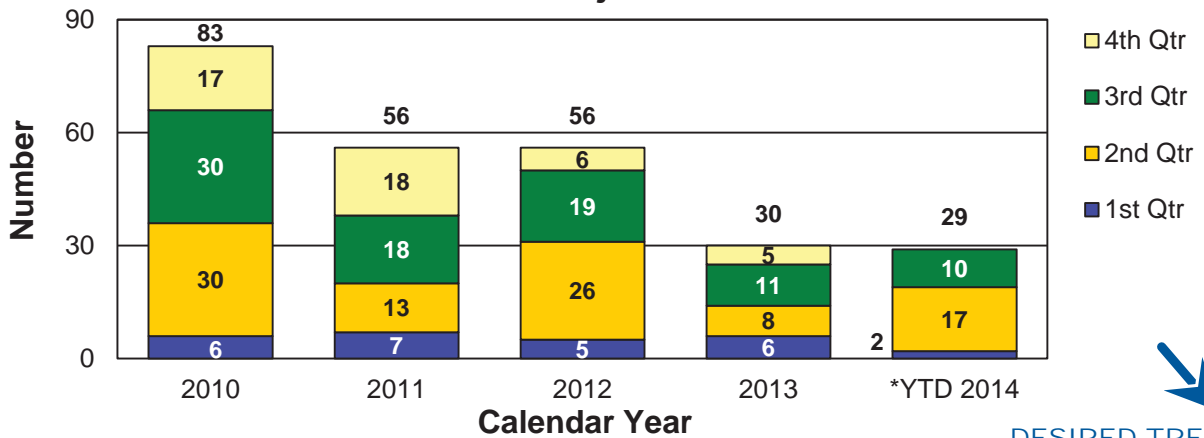
## Number of Crashes in Work Zones



\*YTD 2014 – First, second, third and fourth quarter fatalities were derived from TMS. Due to a backlog of crash reports into STARS, the serious, minor injury and work zone crash measures will only illustrate data derived from TMS for first, second and third quarters. Fourth quarter TMS data incomplete.

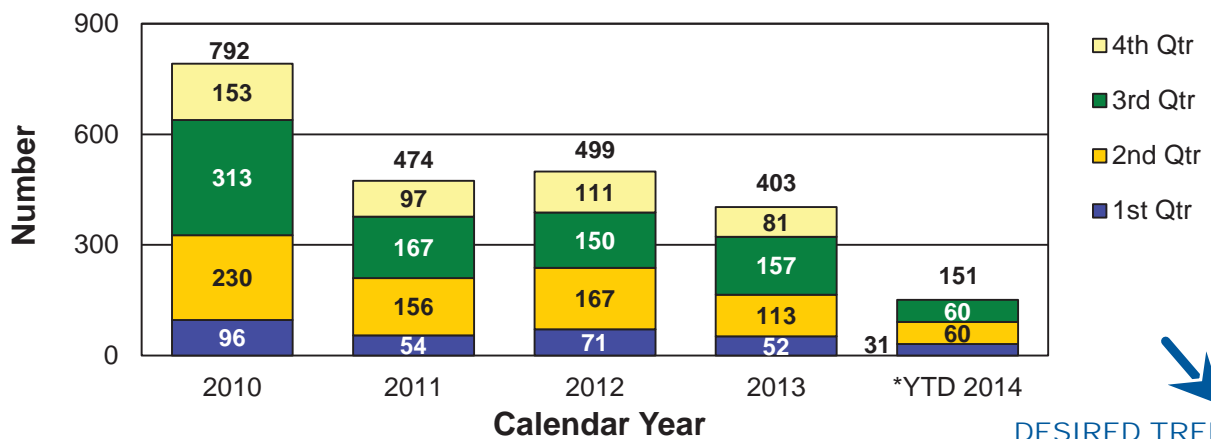
# KEEP CUSTOMERS AND OURSELVES SAFE

## Number of Serious Injuries in Work Zones



DESIRED TREND

## Number of Minor Injuries in Work Zones



DESIRED TREND

\*YTD 2014 – Due to a backlog of crash reports into STARS, the serious, minor injury and work zone crash measures for the first, second and third quarters of 2014 will only illustrate data derived from TMS. Fourth quarter 2014 data is unavailable through the MSHP radio reports.

**RESULT DRIVER:**  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

**MEASUREMENT  
DRIVER:**  
Bill Whitfield,  
Highway Safety Program  
Administrator

**PURPOSE OF  
THE MEASURE:**  
This measure tracks annual  
trends in safety belt use in  
passenger vehicles. This  
data drives the develop-  
ment and focus of the Mis-  
souri Highway Safety Plan,  
which is required annually  
by the National Highway  
Traffic Safety Administra-  
tion. In addition, this data  
supports Missouri's Blue-  
print to Save More Lives  
that identifies the statewide  
initiatives with a goal of  
reducing fatalities to 700 or  
fewer by 2016.

**MEASUREMENT  
AND DATA  
COLLECTION:**  
Each June, a statewide  
survey is conducted at 560  
pre-selected locations in  
28 counties. The data col-  
lected is calculated into a  
safety belt usage rate using  
a formula approved by the  
National Highway Traffic  
Safety Administration. The  
safety belt usage survey  
collects data from locations  
representing 85 percent of  
the state's vehicle occupant  
fatalities. The data collec-  
tion plan is the same each  
year for consistency and  
compliance with National  
Highway Traffic Safety Ad-  
ministration guidelines.

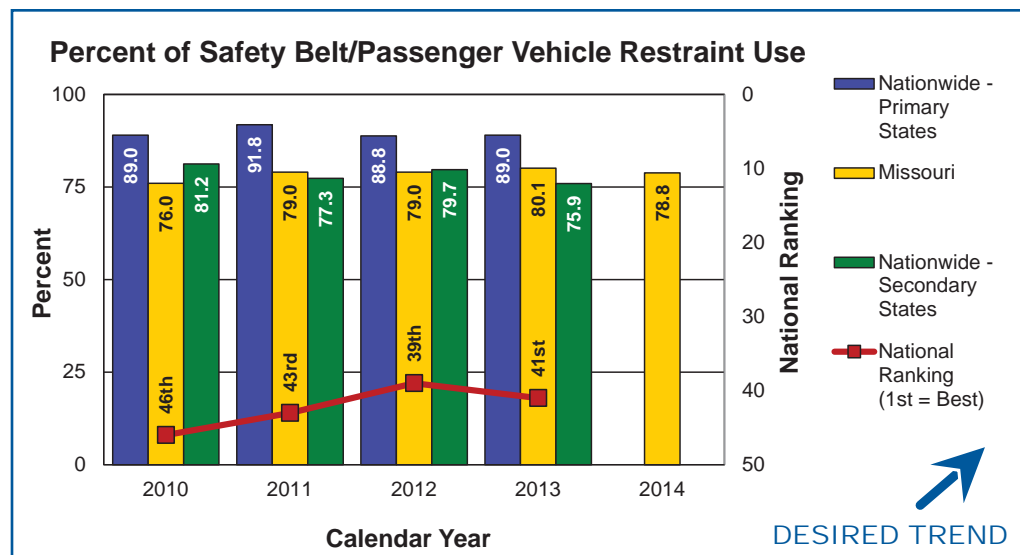
## KEEP CUSTOMERS AND OURSELVES SAFE

### *Percent of safety belt/passenger vehicle restraint use-1e*

Safety belts save lives. But getting people to use them – even to protect their own lives – is a challenge. Public education is one way to keep the issue in front of motorists. Legislation is another. MoDOT supports both approaches, attacking the problem with focused marketing campaigns and reinforcing it with hard facts to back legislative efforts. Several municipalities across the state are taking matters into their own hands enacting primary ordinances within city limits. Missouri currently has 44 communities with a primary safety belt ordinance representing 21.6 percent of the state's population.

Safety belt use in Missouri for 2014 was 79 percent. The national average for safety belt use in 2013 was 87 percent. Missouri's national ranking is currently 41st. Only nine states rank lower in safety belt use than Missouri.

Missouri's safety belt use has plateaued. The number of states with a primary safety belt use law, result in a higher rate of use for those states. States that have a secondary law continue to fall down the list in the national rankings.



**RESULT DRIVER:**  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

**MEASUREMENT  
DRIVER:**  
Mark Biesemeyer,  
Motor Carrier Services  
Program Manager

**PURPOSE OF  
THE MEASURE:**  
This measure tracks the  
number of Commercial Mo-  
tor Vehicles involved in fatal  
and serious injury crashes  
each year. MoDOT uses  
the information to target  
educational, enforcement  
and improvement of safety  
feature efforts.

**MEASUREMENT  
AND DATA  
COLLECTION:**  
Missouri law enforcement  
agencies submit a vehicle  
accident report form to the  
Missouri State Highway  
Patrol to enter them into  
a statewide traffic crash  
database. The measure re-  
ports the number of CMVs  
involved in crashes in which  
one or more people are  
seriously injured or die as a  
result of the crash. Prelimi-  
nary results for the current  
year are reported quarterly.

## KEEP CUSTOMERS AND OURSELVES SAFE

### *Number of commercial motor vehicle crashes resulting in fatalities and serious injuries-1f*

Commercial Motor Vehicles are the lifeblood of our economy. They transport the goods and materials that keep the nation moving. Partnering with the Missouri State Highway Patrol and St. Louis and Kansas City police departments, MoDOT does everything in its power to keep CMV drivers safe and their vehicles on the road. By tracking the number of CMV crashes resulting in fatalities and serious injuries, the department can target educational and enforcement efforts, and also improve safety features such as highway signs, reflective pavement markings, guard cables, rumble strips and incident management alert signs.

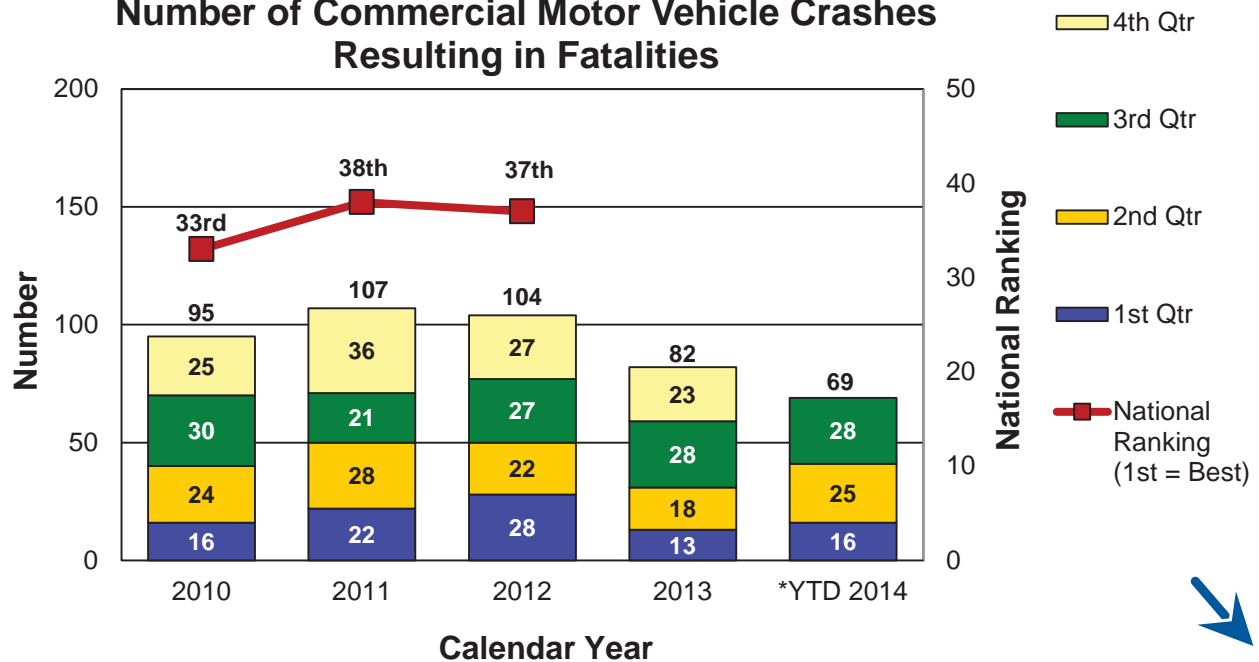
These efforts are making a difference in the number of fatality and serious injury crashes. Between 2010 and 2013, fatal crashes involving a CMV decreased by 13.7 percent. However, the number of fatal crashes reported through the third quarter of 2014 is 69, which is 10 more than reported for through the third quarter of 2013, or a 16.9 percent increase.

Between 2010 and 2013, CMV serious injury crashes decreased by 15.5 percent. The number of serious injury crashes reported through the third quarter of 2014 is 199, which is 27 less than reported for through the third quarter of 2013, or a decrease of 11.9 percent. However, diminished funding may hamper the department's ability to make significant safety improvements in the future.

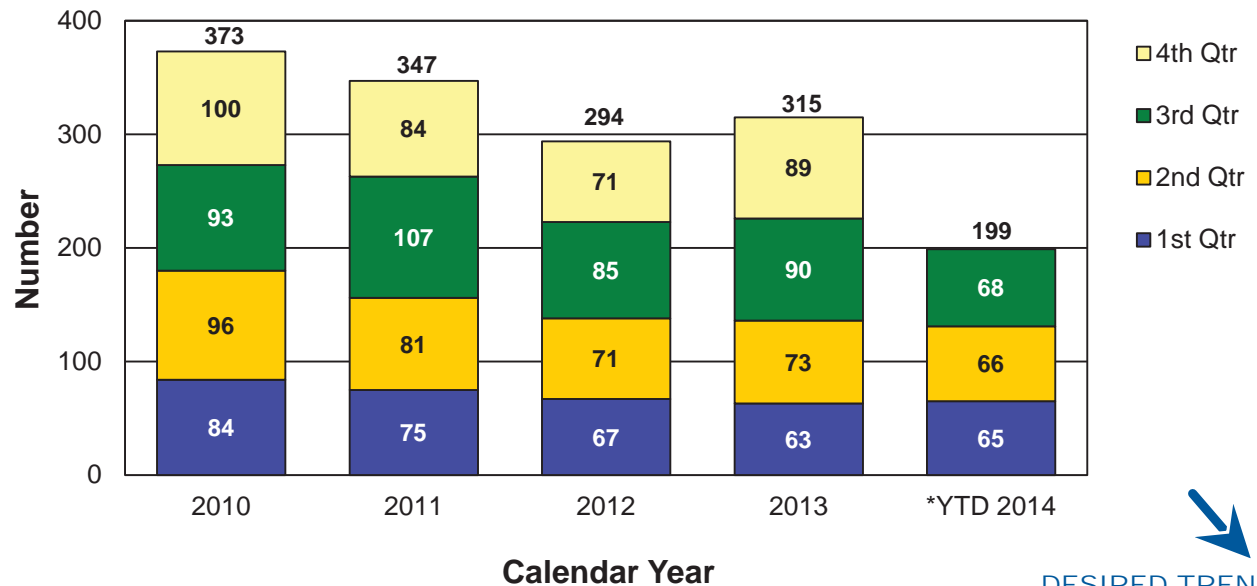


# KEEP CUSTOMERS AND OURSELVES SAFE

## Number of Commercial Motor Vehicle Crashes Resulting in Fatalities



## Number of Commercial Motor Vehicle Crashes Resulting in Serious Injuries



\*2014 - Due to a backlog of crash reports into STARS, the fatality and serious injury measures for the third quarter of 2014 will only illustrate data derived from TMS.

**RESULT DRIVER:**  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

**MEASUREMENT  
DRIVER:**  
Roberta Jacobson,  
Claims Administration  
Manager

**PURPOSE OF  
THE MEASURE:**  
This measure tracks the  
actual number of days em-  
ployees cannot work due to  
work-related injuries.

**MEASUREMENT  
AND DATA  
COLLECTION:**  
The data is collected  
from Riskmaster, the  
department's risk manage-  
ment claims administration  
software.

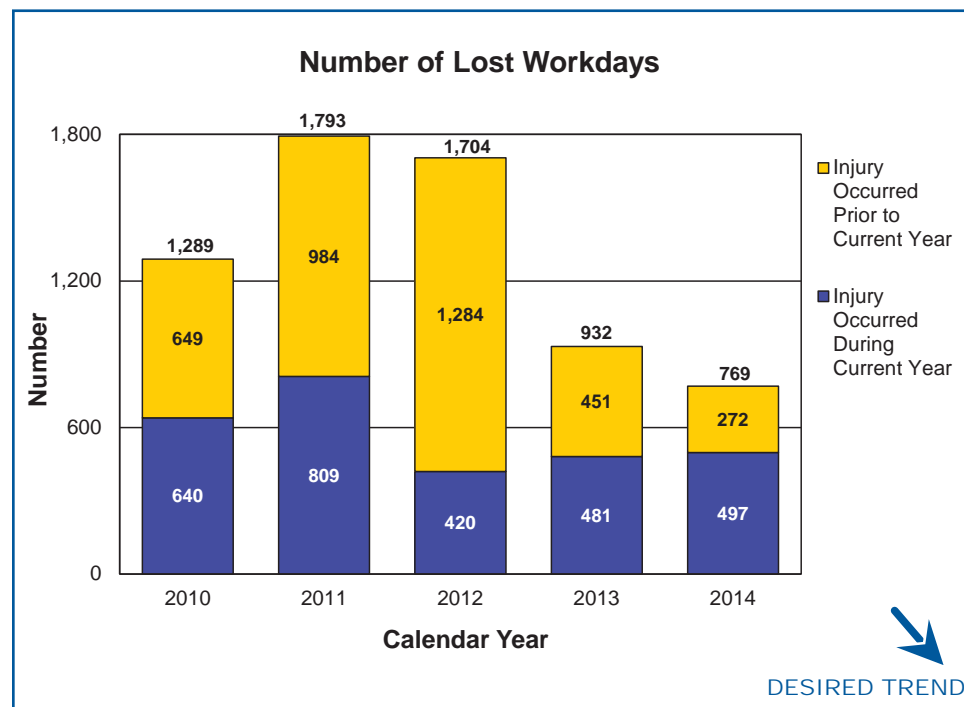
## KEEP CUSTOMERS AND OURSELVES SAFE

### *Number of lost workdays-1g*

The impact of work-related injuries cannot be underestimated. Employees injured at work not only affect the department, but can disrupt the personal lives of MoDOT employees and their families. Measuring lost workdays shows more than a number on a chart. These are people whose lives can be changed by a split second of inattention or poor preparation. Watching this number fall over the years, shows that something is going right.

For 2014, the total number of lost workdays decreased 17 percent from 2013. There were three incidents in which employees fell or slipped on MoDOT equipment, accounting for 20 percent of the lost workdays. Another 18 percent of the lost workdays were attributable to three incidents involving snow or ice conditions. Two incidents of lifting MoDOT equipment or materials accounted for 11 percent of the lost workdays.

Employees are paying attention. They are wearing proper safety gear and taking proper precautions before engaging in a safety-sensitive task. The drop in this number is more than a statistic. It means more people are going home safe.



RESULT DRIVER:  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

MEASUREMENT  
DRIVER:  
Jeff Padgett,  
Risk and Benefits  
Management Director

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
number of recordable inju-  
ries, in total and as a rate of  
injuries per 100 workers.

MEASUREMENT  
AND DATA  
COLLECTION:  
The calculation for inci-  
dence rate is the number of  
recordables times 200,000  
divided by the number of  
hours worked. The 200,000  
used in the calculation is  
the base for 100 full-time  
workers (working 40 hours  
per week, 50 weeks per  
year). MoDOT defines a re-  
cordable incident as a work-  
related injury or illness that  
results in death, days away  
from work or medical treat-  
ment resulting in cost to the  
department. The injury data  
is collected from Riskmas-  
ter, the department's risk  
management claims ad-  
ministration software. The  
number of hours worked is  
taken from MoDOT's payroll  
data.

## KEEP CUSTOMERS AND OURSELVES SAFE

### *Total and rate of MoDOT recordable incidents-1h*

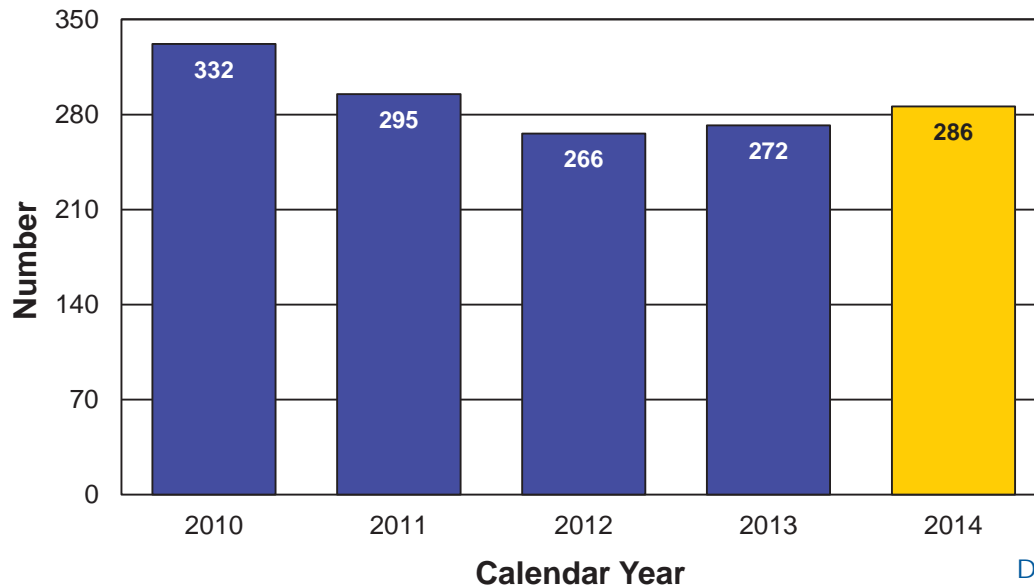
MoDOT is dedicated to employee safety. Getting home safe is a responsibility every employee shares. To reinforce this value, the "Safety Begins with Me" program was launched in 2013 to remind all employees that safety is a personal responsibility.

Both the number of recordable incidents and the rate of recordable incidents have increased for 2014 compared to 2013. Leading causes of incidents during calendar year 2014 were: slips, trips and falls at 25 percent; strains (lifting, twisting, pushing/pulling) at 15 percent; struck or injured and cut/puncture at 12 percent each. When looking at the largest category (slips, trips and falls), 37 percent of these injuries were snow/ice related. Another 27 percent occurred when employees were entering, exiting or climbing on MoDOT equipment.



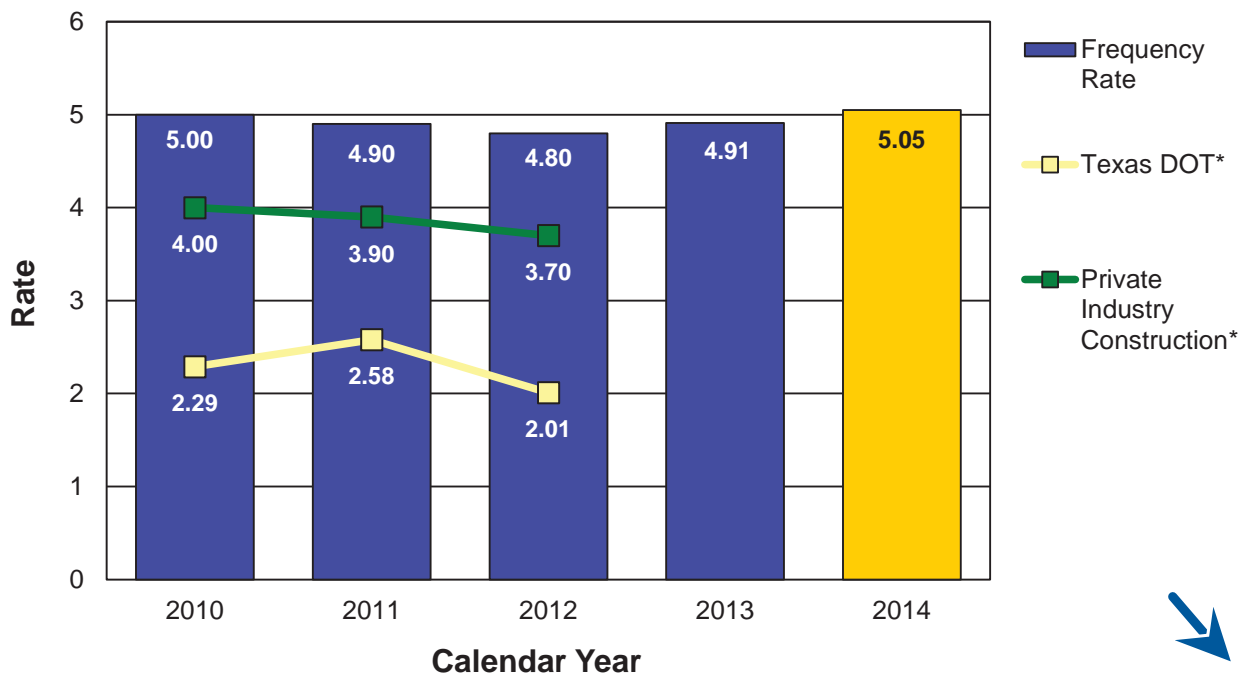
# KEEP CUSTOMERS AND OURSELVES SAFE

## Total of MoDOT Recordable Incidents



DESIRED TREND

## Rate of MoDOT Recordable Incidents



DESIRED TREND

\*Texas DOT and Private Industry Construction category data, from the OSHA website, are not yet available for 2013.

RESULT DRIVER:  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

MEASUREMENT  
DRIVER:  
Steve Patterson, Safety and  
Claims Manager

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
number of general liability  
claims filed and amount  
paid.

MEASUREMENT  
AND DATA  
COLLECTION:  
General liability claims  
arise from allegations of  
injuries/damages caused  
by the dangerous condition  
of MoDOT property and  
the injury/damage directly  
resulted from the dangerous  
condition. In addition, an  
employee must be negligent  
and create the dangerous  
condition or MoDOT must  
have actual or constructive  
notice of the dangerous  
condition in sufficient time  
prior to the injury/damage  
to have taken measures to  
protect the public against  
the dangerous condi-  
tion. Claims data is col-  
lected from Riskmaster, the  
department's risk manage-  
ment claims administration  
software.

## KEEP CUSTOMERS AND OURSELVES SAFE

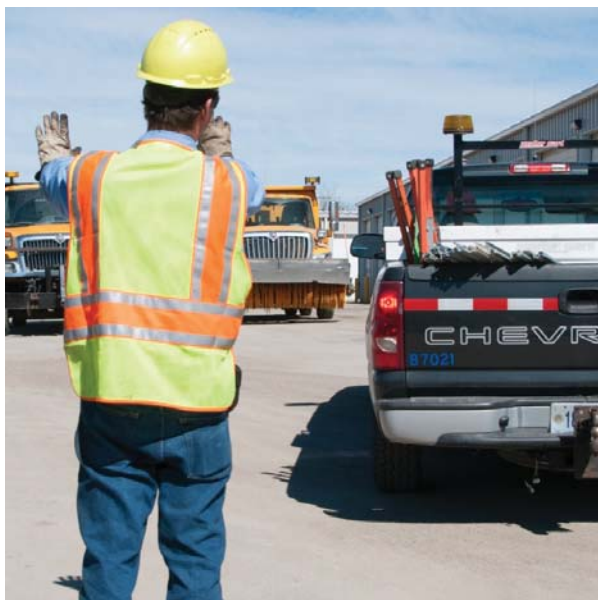
### *General liability claims and costs-1i*

Keeping ourselves and the public safe is MoDOT's top priority. Controlling damage to vehicles and reducing personal injury in work zones, right of way and other areas under department control helps MoDOT accomplish this goal. Compared to 2013, there was a decrease of 4 percent in the number of claims. For 2014, the majority of the claims are attributed to striping and pavement defects. During the same timeframe, there was a decrease of 5 percent in the amount paid. This quarter, payment was made on 115 claims against the department totaling \$2,126,999.52. More than 75 percent of this quarter's payments are attributed to three claims.

The department received an unfavorable arbitration on a claim occurring in 2009, costing \$813,852, where MoDOT was found to have a dangerous condition at an intersection. The accident resulted in severe injuries to two claimants.

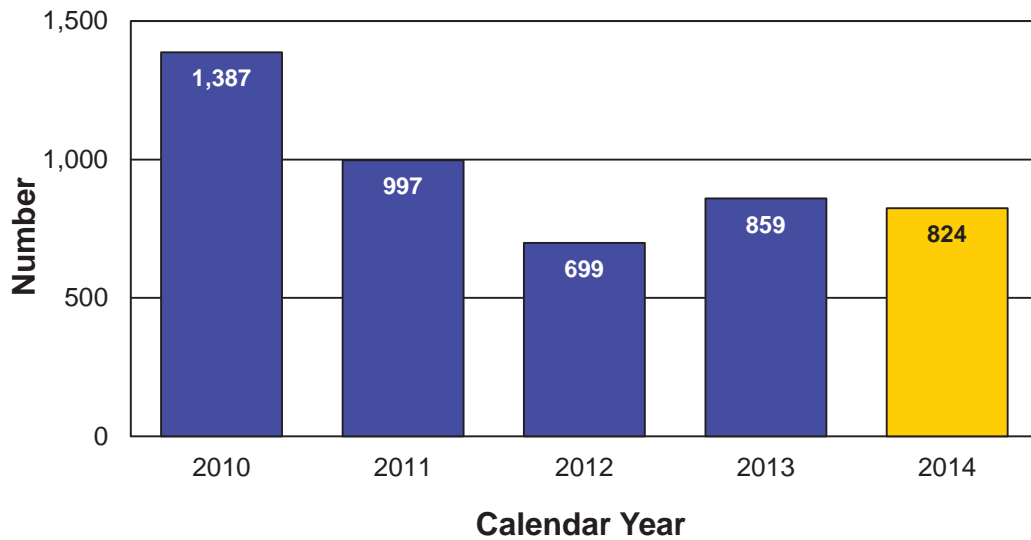
The department received an unfavorable arbitration on a another claim occurring in 2009, costing \$743,000, The accident occurred on ice covered road due to drainage from piled up snow on the shoulder. As a result there was a single car accident causing a fatality to a pedestrian.

The department settled a claim occurring in 2014 for \$295,000, based on the dangerous condition of a lettered route where there was a significant edge drop-off. This contributed to multiple injuries and one fatality.



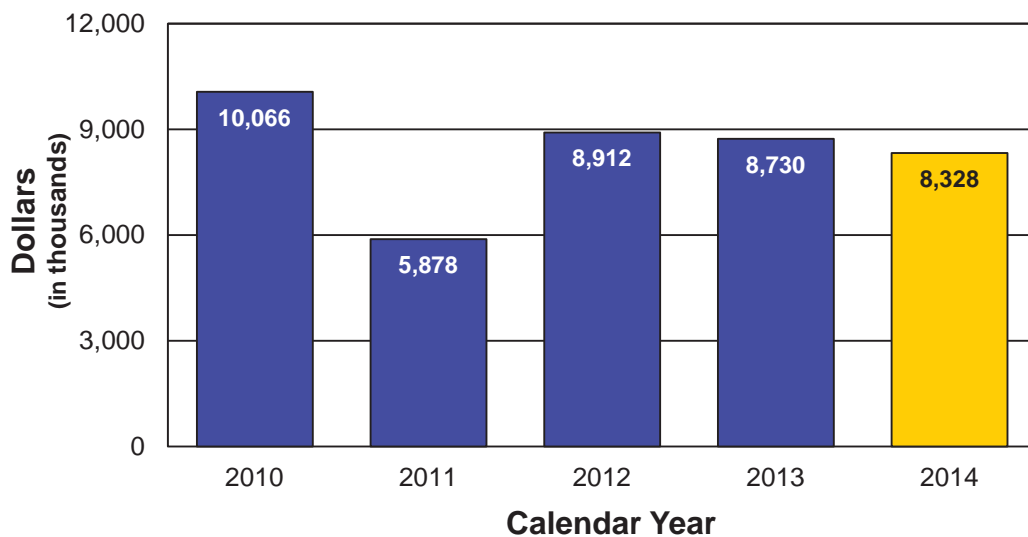
## KEEP CUSTOMERS AND OURSELVES SAFE

### Number of Claims for General Liability



DESIRED TREND

### Amount Paid in Claims for General Liability



DESIRED TREND



# KEEP ROADS AND BRIDGES IN GOOD CONDITION

*Dennis Heckman, State Bridge Engineer*



# Tracker

MEASURES OF DEPARTMENTAL PERFORMANCE



Missourians have said they want MoDOT to keep roads and bridges in good condition. Customers are looking for smooth pavements and bridges that can safely handle growing traffic demands. With 33,890 miles of highway and 10,371 bridges on the state system, the challenges are great; however, we are focused on using our limited resources to keep Missouri's roads and bridges in good condition.

**RESULT DRIVER:**  
Dennis Heckman,  
State Bridge Engineer

**MEASUREMENT DRIVER:**  
Brian Reagan,  
Transportation System  
Analysis Engineer

**PURPOSE OF THE MEASURE:**  
This measure tracks the condition of Missouri's major highways.

**MEASUREMENT AND DATA COLLECTION:**  
Missouri's major highway system contains the state's busiest highways, including interstates and most U.S. routes. It also includes busy routes in urban areas, particularly where vehicles travel between business districts and residential areas. There are 5,533 miles total on the major highway system, and the condition of these roadways is determined using a variety of measures. While it can be difficult to compare one state's roadways to another's, MoDOT uses Georgia as a comparable system because it has a similar amount of major highways and also bases its evaluation on the smoothness of the roadways. Missouri measures the condition of its roadways using smoothness as one factor, but also considers physical distresses such as cracking.

## KEEP ROADS AND BRIDGES IN GOOD CONDITION

MAP-21

### *Percent of major highways in good condition-2a*

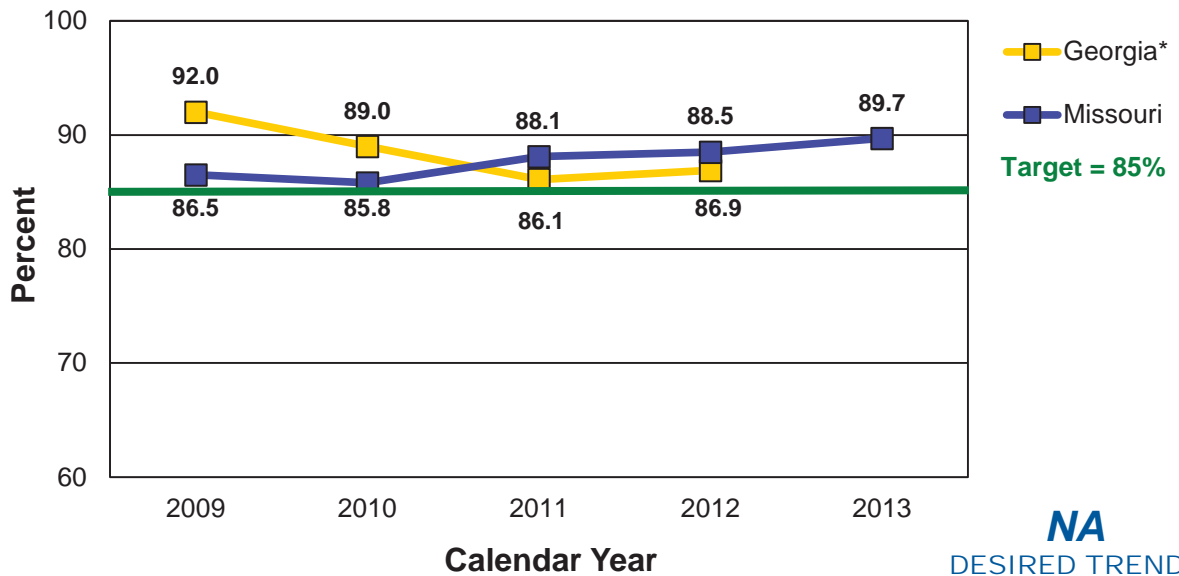
MoDOT started a major road improvement program in 2004 called the Smooth Roads Initiative. Over the next two years, the program improved 2,200 miles of Missouri's major routes, bringing them from 47 percent in good condition up to 74 percent. The Better Roads, Brighter Future program in 2007 further improved the system, increasing Missouri's major routes in good condition to 85 percent.

Currently more than 89 percent of major highways are rated in good condition. However, with contractor awards dropping from over \$700 million per year to \$325 million per year beginning in 2017, it will be increasingly difficult to maintain this condition level.

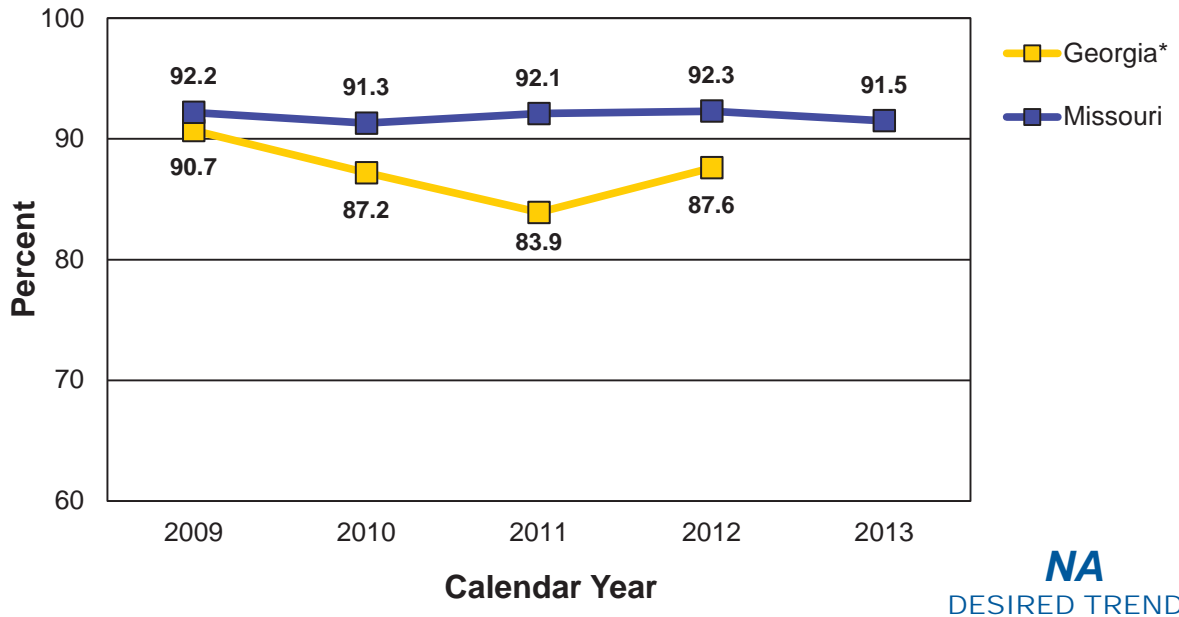


# KEEP ROADS AND BRIDGES IN GOOD CONDITION

## Percent of Major Highways in Good Condition



## Percent of Interstate Highways in Good Condition



\*Source data for Georgia comes from FHWA highway statistics. Data for 2013 is not available at the time of publication. Georgia data is based only on pavement smoothness (IRI) submitted as part of the Highway Performance Monitoring System.

**RESULT DRIVER:**  
Dennis Heckman,  
State Bridge Engineer

**MEASUREMENT DRIVER:**  
Brian Reagan,  
Transportation System  
Analysis Engineer

**PURPOSE OF THE MEASURE:**  
This measure tracks the condition of Missouri's minor highways.

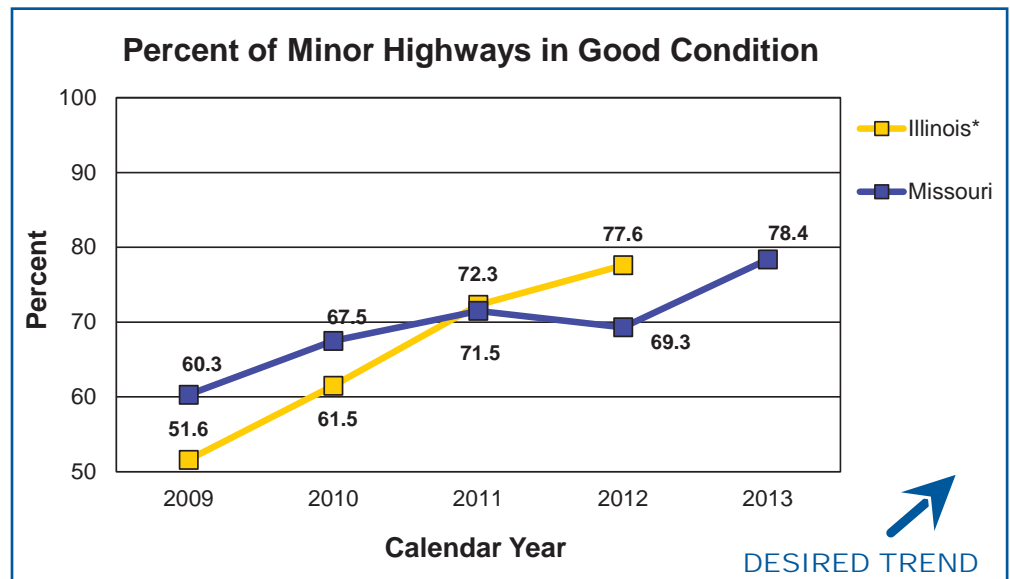
**MEASUREMENT AND DATA COLLECTION:**  
Missouri's minor highway system consists of its less-traveled state highways, including those routes that mainly serve local transportation needs. The minor highway system includes most lettered routes. There are 28,357 miles of minor highways in Missouri. The condition of these routes is determined using a variety of measures. While it can be difficult to compare one state's roadways to another's, MoDOT uses Illinois as a comparable system because it has a similar number of minor highways and has the highest percentage of routes in good condition. Missouri measures the condition of its roadways using smoothness as one factor, but also considers physical distresses such as cracking.

## KEEP ROADS AND BRIDGES IN GOOD CONDITION

### *Percent of minor highways in good condition-2b*

MoDOT began an initiative in 2004 that focused on improving major highways. As a result, less time and funding were spent on minor roads and the percentage of minor roads in good condition fell from 71 percent in 2005 to 60 percent in 2009. After MoDOT made headway improving major highways, it targeted its focus on minor routes and brought 71 percent back to good condition.

Currently, 78 percent of Missouri's minor roads are in good condition, which is an increase from 2012. With contractor awards dropping from over \$700 million per year to \$325 million per year beginning in 2017, the expectation is that the condition of the minor roads will decline.



\*Source data for Illinois comes from FHWA highway statistics. Data for 2013 is not available at the time of publication. Data is based on a combination of pavement condition and smoothness as submitted as part of the Highway Performance Monitoring System.

RESULT DRIVER:  
Dennis Heckman,  
State Bridge Engineer

MEASUREMENT  
DRIVER:  
David Koenig,  
Bridge Management  
Engineer

PURPOSE OF  
THE MEASURE:  
This measure tracks  
progress toward improving  
the condition of Missouri's  
bridges.

MEASUREMENT  
AND DATA  
COLLECTION:  
This measure is updated  
in April based on MoDOT  
inspections conducted the  
prior year. Data is pre-  
sented for all state bridges  
and major bridges. Major  
bridges are typically those  
that cross large rivers and  
lakes and are longer than  
1,000 feet. Of the 10,371  
bridges on state highways,  
208 are major. Bridges are  
categorized as being in  
good, fair or poor condition.  
Good means no significant  
condition-related problems  
exist. Fair indicates moder-  
ate problems that may re-  
quire minor rehabilitation or  
maintenance to return the  
structure to good condition.

## KEEP ROADS AND BRIDGES IN GOOD CONDITION

MAP-21

### *Condition of state bridges-2c*

The public has indicated the condition of Missouri's existing roadway system should be one of the state's highest priorities. Currently, 1,966 (47 major) structures are in poor condition, 4,686 (97 major) structures are in fair condition and 3,719 (64 major) structures are in good condition.

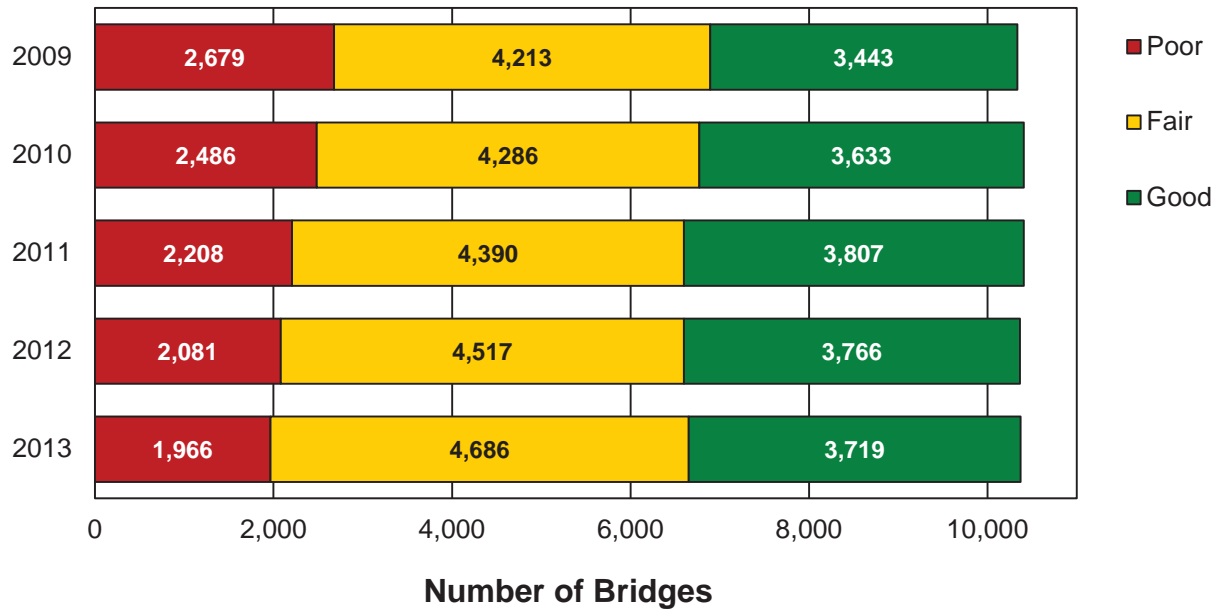
Statewide, the number of structures in poor condition dramatically decreased over the last five years and the number of structures in good condition moderately improved up until 2011. These improvements were heavily impacted by the Safe & Sound Bridge Improvement Program that was completed in 2012, and by the increased construction program that resulted from the passage of Amendment 3 in 2004. It should be noted that while the number of poor-condition bridges dropped by 713 over this five-year period, the number in good condition only increased by 276. The number in fair condition increased by 473 over this period which is reflective of MoDOT's aging bridge population with many structures at the point where they need minor maintenance or rehabilitation. With the decrease in funds available for the construction program, continued improvements in the number of structures in poor condition is unlikely.

For major bridges, the number of structures in the poor category has been dropping over the last five years because of an aggressive focus on these structures in the STIP, but despite a significant investment in major bridges, the number of structures in good condition generally dropped over the five-year period while the number in fair condition significantly increased. Work on major bridges is very expensive with simple rehabilitations costing \$10 to \$20 million and replacements ranging from \$20 million to \$200 million. With a greatly reduced construction program and potential problems with matching federal funds in 2017, significant future improvements in the condition of major bridges are unlikely.

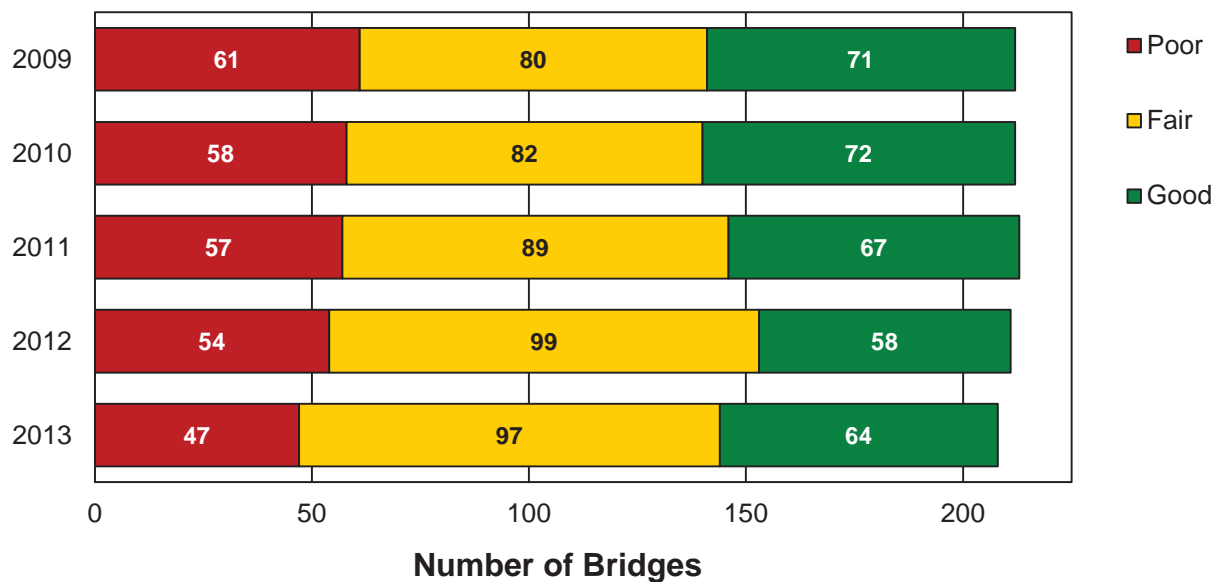


# KEEP ROADS AND BRIDGES IN GOOD CONDITION

**Statewide Condition of All Bridges  
(10,371 Total Bridges)**



**Statewide Condition of Major Bridges  
(208 Total Bridges)**



**RESULT DRIVER:**  
Dennis Heckman,  
State Bridge Engineer

**MEASUREMENT DRIVER:**  
David Koenig,  
Bridge Management Engineer

**PURPOSE OF THE MEASURE:**  
This measure tracks the percent of structurally deficient deck area for bridges that are part of the National Highway System. Moving Ahead for Progress in the 21st Century, the federal surface transportation act, requires states to track the Structurally Deficient deck area with a national performance goal of it being less than 10 percent.

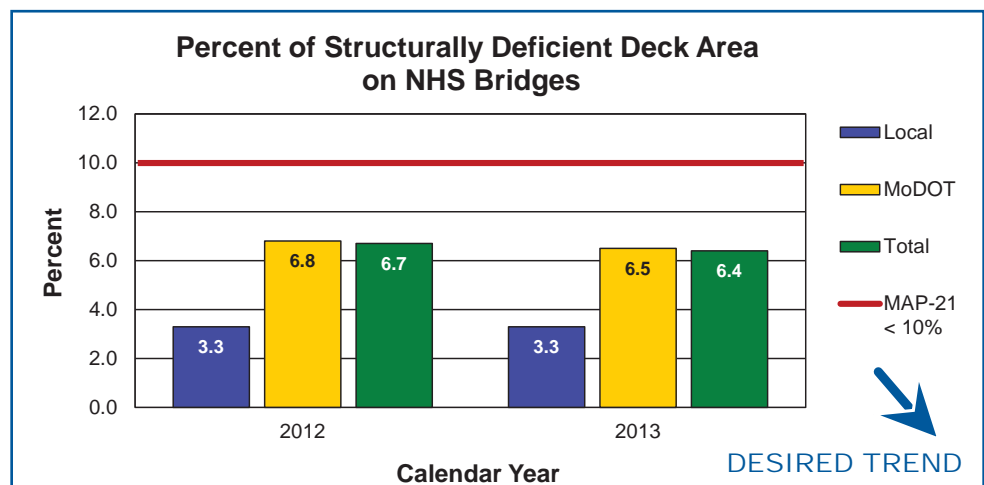
**MEASUREMENT AND DATA COLLECTION:**  
The NHS is defined by federal law and consists of all roadways functionally classified as principal arterials as well as some routes that serve as major connections to multimodal freight type facilities and some locally owned roadways. Historically, SD consists of bridges that are in bad condition or have insufficient load capacity when compared to modern design standards. With MAP-21, there are some proposed adjustments in how SD is determined and this measure has been created based on these proposed adjustments.

## KEEP ROADS AND BRIDGES IN GOOD CONDITION

MAP-21

### *Percent of structurally deficient deck area on National Highway System-2d*

The public has indicated keeping Missouri's existing roads and bridges in good condition should be one of the state's highest priorities. MAP-21 set a national performance goal to have the SD deck area of NHS bridges be less than 10 percent. The local system has 143 NHS structures (five SD) and the MoDOT system has 3,594 NHS structures (145 SD). MoDOT currently meets the national performance goal with the total at 6.4 percent, which is attributable to aggressive efforts undertaken with construction on major bridges over the last 10 years, as well as other accelerated construction from MoDOT's bonding program. The ability to continue to meet this goal will become more difficult with a reduced construction program. Additionally, the potential inability for MoDOT to fully match available federal funds in 2017 could have a severe impact on this measure. This measure is also heavily influenced by major bridges because one structure has the ability to impact this measure +/-0.5 percent. Since many major bridges are part of the NHS, any reduction in funding available for the construction program will limit MoDOT's ability to keep up with the replacement/rehabilitation needs on major bridges.





## PROVIDE OUTSTANDING CUSTOMER SERVICE

*Dan Niec, District Engineer*



# Tracker

MEASURES OF DEPARTMENTAL PERFORMANCE



Every MoDOT employee is responsible for delivering outstanding customer service. We strive to be respectful, responsive, and clear in all our communication. We want to build strong relationships with our transportation partners, our customers and each other.

RESULT DRIVER:  
Dan Niec,  
District Engineer

MEASUREMENT  
DRIVER:  
Tammy Wallace,  
Senior Customer  
Relations Specialist

PURPOSE OF  
THE MEASURE:  
This measure tracks  
MoDOT's progress toward  
the mission of delighting its  
customers.

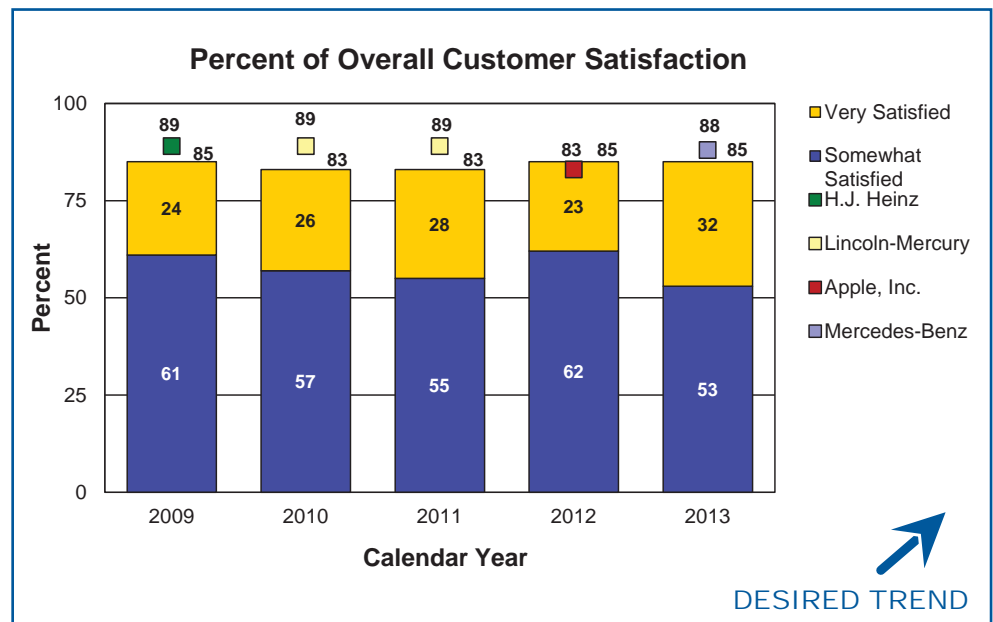
MEASUREMENT  
AND DATA  
COLLECTION:  
Data is collected through  
an annual telephone survey  
of approximately 3,500  
randomly selected Missou-  
rians. Data compiled by the  
American Customer Satis-  
faction Index in 2013 shows  
Mercedes-Benz having the  
highest customer satisfac-  
tion rate – 88 percent – out  
of the hundreds of compa-  
nies and government agen-  
cies the ACSI scores.

## PROVIDE OUTSTANDING CUSTOMER SERVICE

### *Percent of overall customer satisfaction-3a*

Over the past few years customer satisfaction has remained high. In 2013, 85 percent of Missourians surveyed said they were satisfied with the job MoDOT is doing, which tied a record high. We also saw an increase in the number of very satisfied customers.

The condition of our roads and bridges and customer satisfaction are closely tied together. In the 2013 Report Card from Missourians, customers told MoDOT the condition of roads and bridges were the most important transportation service to them. MoDOT staff has been diligent in providing outstanding customer service, and temporary funding has allowed us to keep our system maintained at a level customers expect. However, over the next few years as MoDOT's funding is anticipated to drop below what is required to even maintain the state system, customer satisfaction levels are likely to be impacted.



RESULT DRIVER:  
Dan Niec,  
District Engineer

MEASUREMENT  
DRIVER:  
Holly Dentner,  
Customer Relations  
Manager

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
percent of customers who  
view MoDOT as a leader  
and expert in transportation  
issues. The measure shows  
how effectively MoDOT  
conveys its expertise to the  
traveling public.

MEASUREMENT  
AND DATA  
COLLECTION:  
Data is collected through  
an annual telephone survey  
of approximately 3,500  
randomly selected Missou-  
rians.

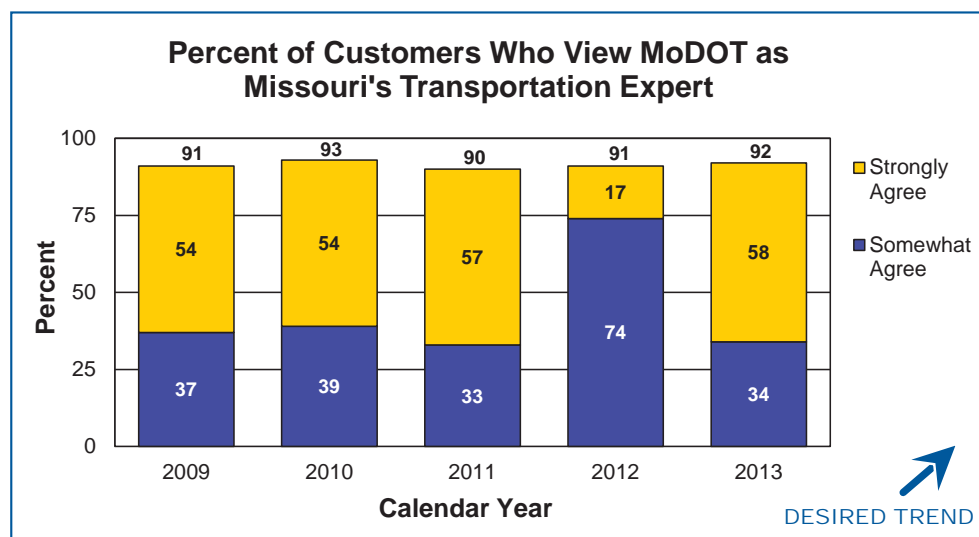
## PROVIDE OUTSTANDING CUSTOMER SERVICE

### *Percent of customers who view MoDOT as Missouri's transportation expert-3b*

As the agency responsible for transportation in Missouri, MoDOT must hold its lead as an expert in the field. The department should serve as the front-runner – representing the best transportation options for Missouri and partnering with state and national organizations and others to deliver a strong transportation system.

The 2013 survey shows an overwhelming majority of customers perceive the department as Missouri's transportation expert. Ninety-two percent of those surveyed agreed MoDOT serves this role, a percentage the department has consistently maintained since 2009. Of the 92 percent, 58 percent of respondents "strongly agreed" and 34 percent "somewhat agreed" MoDOT serves as the state's transportation expert.

The department continues to work on improving partnerships with all Missourians, including local government, legislators and other elected officials, and transportation-related groups and organizations. With the suspension of the cost share program, these relationships may face challenges.



## RESULT DRIVER:

Dan Niec,  
District Engineer

## MEASUREMENT DRIVER:

Melissa Black,  
Customer Relations  
Manager

## PURPOSE OF THE MEASURE:

This measure tracks the percent of customers who trust MoDOT to keep its commitments. Public trust is an important component in building support for transportation issues.

## MEASUREMENT AND DATA COLLECTION:

Data is collected through an annual telephone survey of approximately 3,500 randomly selected Missourians, being most recently updated for the October 2013 Tracker. Until 2013, this measure was a yes/no question. This year, customers responded to a satisfaction scale. The sum of the positive responses – Somewhat Agree at 45 percent and Strongly Agree at 42 percent – provide the comparative data for 2013.

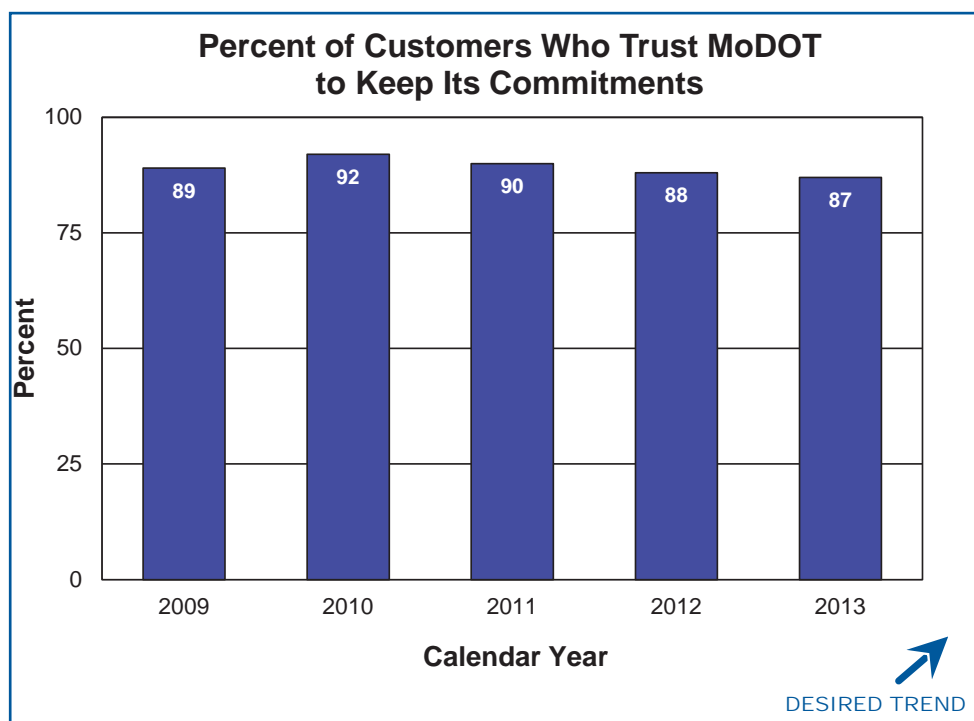
# PROVIDE OUTSTANDING CUSTOMER SERVICE

## *Percent of customers who trust MoDOT to keep its commitments to the public-3c*

Gaining and keeping the public's trust is key to MoDOT's overall success. The best way MoDOT can accomplish this is to deliver on the commitments it makes. In the 2013 survey, 87 percent of Missouri residents said they trusted MoDOT to keep its commitments compared to 88 percent in 2012. While the 1 percent difference is within the statistical margin of error, it is part of a four-year downward trend from 92 percent in 2010.

The department's annual construction program, which is estimated to be just over \$700 million for 2015, will drop to \$600 million in 2016 and then just more than \$300 million each year in 2017 through 2019. Missourians tell MoDOT they want more from their transportation system, but the reality is they are going to get less – and what they have will get worse. Because of the current financial forecast, the Missouri Highways and Transportation Commission decided no new projects will be added to the 2015-2019 STIP. The Commission also suspended the cost share program, which allowed local governments to partner with MoDOT to deliver state highway and bridge projects that enhance economic development in the state.

As fewer projects are completed and the system deteriorates, it is likely the public's trust in the department to keep its commitments will continue to decline.



## RESULT DRIVER:

Dan Niec,  
District Engineer

## PROVIDE OUTSTANDING CUSTOMER SERVICE

## MEASUREMENT DRIVER:

Marie Elliott,  
Customer Relations  
Manager

## PURPOSE OF THE MEASURE:

This measure tracks whether customers feel MoDOT provides timely, accurate and understandable information about road projects, highway conditions and work zones they need and use.

## MEASUREMENT AND DATA COLLECTION:

Data is collected through an annual telephone survey of approximately 3,500 randomly selected Missourians.

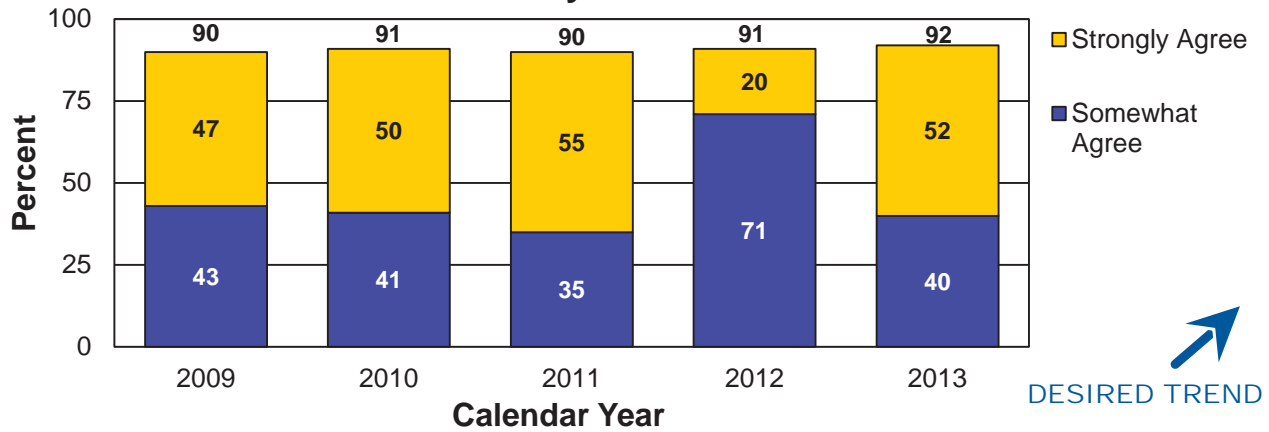
### *Percent of customers who feel MoDOT provides timely, accurate and understandable information-3d*

Just like well-maintained roads and bridges, MoDOT delivers information. The citizens of Missouri expect timely, accurate and understandable information from their department of transportation. Whether it's a press release, e-update, text alert or a notice of a public meeting, MoDOT makes every effort to get the word out as quickly and as clearly as possible. The results of this effort are public trust and respect. With numbers consistently topping 90 percent agreement for the past four years, this measure shows that the department meets our customers' high expectations.

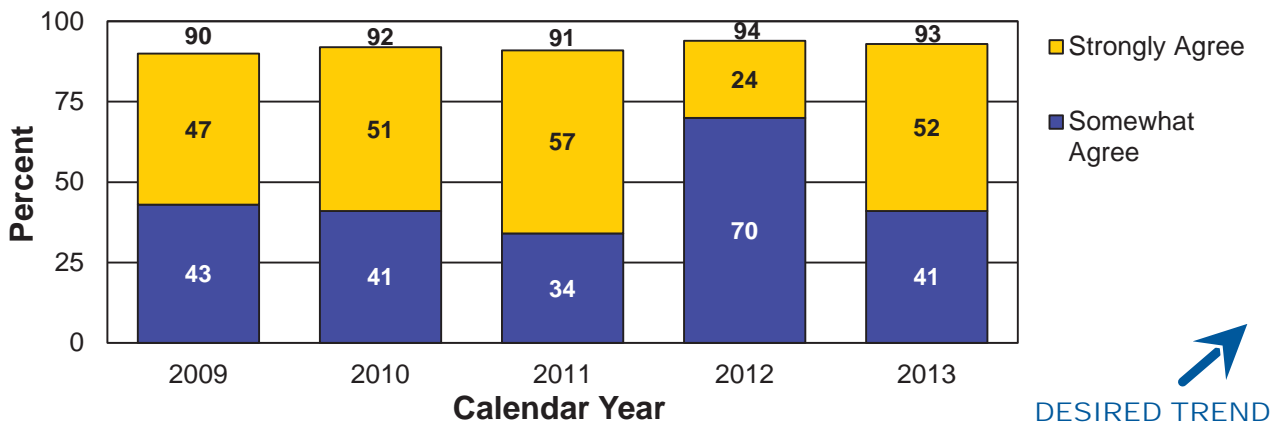


## PROVIDE OUTSTANDING CUSTOMER SERVICE

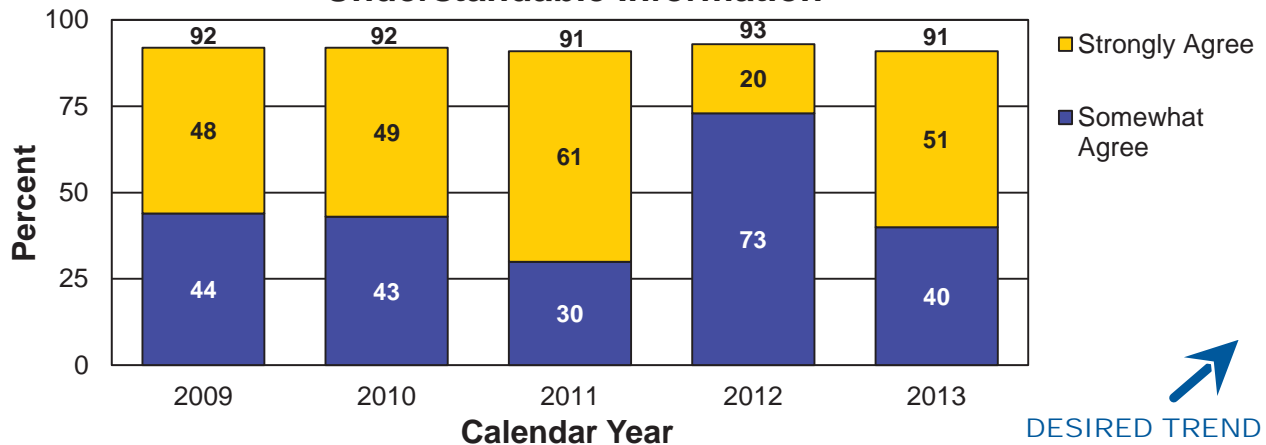
**Percent of Customers Who Feel MoDOT Provides Timely Information**



**Percent of Customers Who Feel MoDOT Provides Accurate Information**



**Percent of Customers Who Feel MoDOT Provides Understandable Information**



RESULT DRIVER:  
Dan Niec,  
District Engineer

MEASUREMENT  
DRIVER:  
Nicole Hood,  
Assistant State Design  
Engineer

PURPOSE OF  
THE MEASURE:  
This measure provides  
information regarding  
the public's perception of  
MoDOT's performance in  
providing the right transpor-  
tation solutions.

MEASUREMENT  
AND DATA  
COLLECTION:  
Data for this measure is  
collected through an annual  
survey sent to users of proj-  
ects completed and opened  
to traffic within the previous  
year. The districts iden-  
tify 21 projects – three per  
district – in three categories:  
large, medium and small.  
Large projects are defined  
as those involving a major  
route or one that is funded  
through major project dol-  
lars. Medium projects are  
of district-wide importance.  
Small projects have only  
local significance. A sample  
of residents is drawn from  
zip code areas adjoining the  
recently completed project.  
The samples include 500  
addresses per project area.

## PROVIDE OUTSTANDING CUSTOMER SERVICE

### *Percent of customers who believe completed projects are the right transportation solutions-3e*

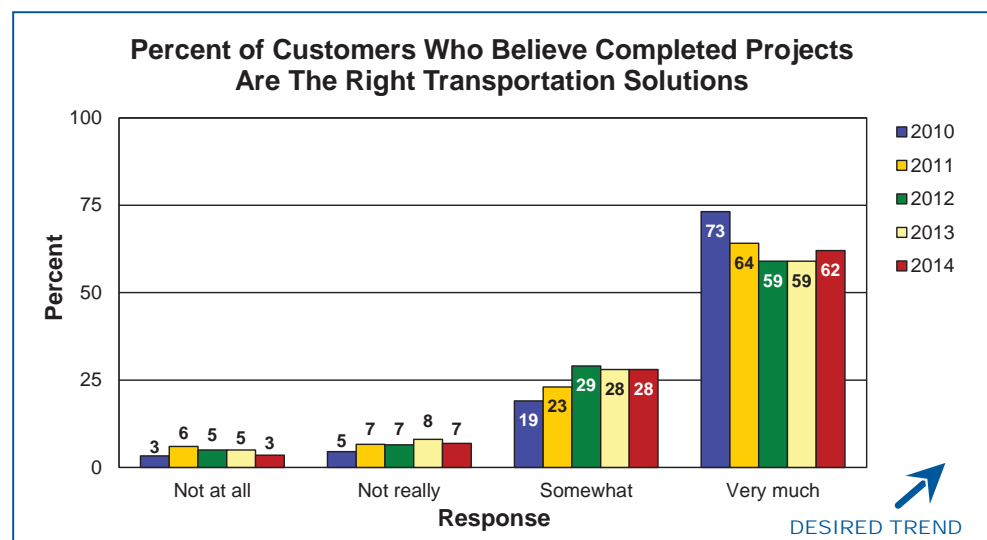
One of the most prominent products MoDOT delivers to its customers is a highway construction project. While the department tries to involve local residents in planning and designing local projects, the real impact of the project isn't known until people actually use the results of the project. The 2014 survey results continue to show most Missourians are very satisfied with local projects and believe that MoDOT provides the right transportation solution.

The majority of respondents thought that the project made the roadway:

- safer (88.2 percent),
- more convenient (88.1 percent),
- less congested (81.9 percent),
- easier to travel (88.6 percent),
- better marked (85.2 percent), and
- 89.6 percent considered the project the right transportation solution.

As part of the questionnaire, each respondent has the opportunity to provide comments about why the local project was – or was not – the right transportation solution. Each comment is shared with the local district for evaluation and to guide future projects.

MoDOT expects the funding available for the annual construction program to drop until it reaches \$325 million in fiscal year 2017. At that level, the department will not be able to keep the highway and bridge system in the shape it is in today and undertaking projects that solve transportation problems will be out of the question. Because of this, the results of this measure are likely to decline in the near future.



## RESULT DRIVER:

Dan Niec,  
District Engineer

## MEASUREMENT DRIVER:

Melissa Black,  
Customer Relations  
Manager

## PURPOSE OF THE MEASURE:

This measure shows how satisfied customers who contact MoDOT are with the politeness, clarity and responsiveness they receive.

## MEASUREMENT AND DATA COLLECTION:

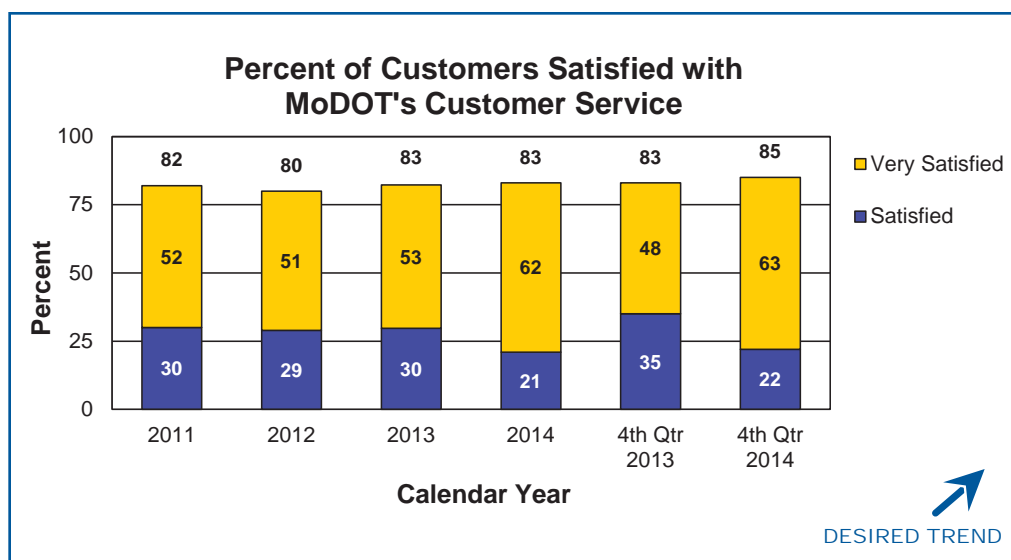
The data for this measure is obtained from a monthly telephone survey of 200 customers who contacted a MoDOT customer service center in the previous month. The customer contacts come from call reports logged into the customer service database. Survey participants are asked to respond on a Strongly Agree to Strongly Disagree scale regarding representative politeness and how quickly and clearly MoDOT responded to and answered questions or concerns. A fourth question asks for a rating of overall satisfaction. This measure also includes the average time to complete requests logged into the customer service database. Requests that require more than 30 days to complete are removed to prevent skewing overall results.

# PROVIDE OUTSTANDING CUSTOMER SERVICE

## *Percent of customers satisfied with MoDOT's customer service – 3f*

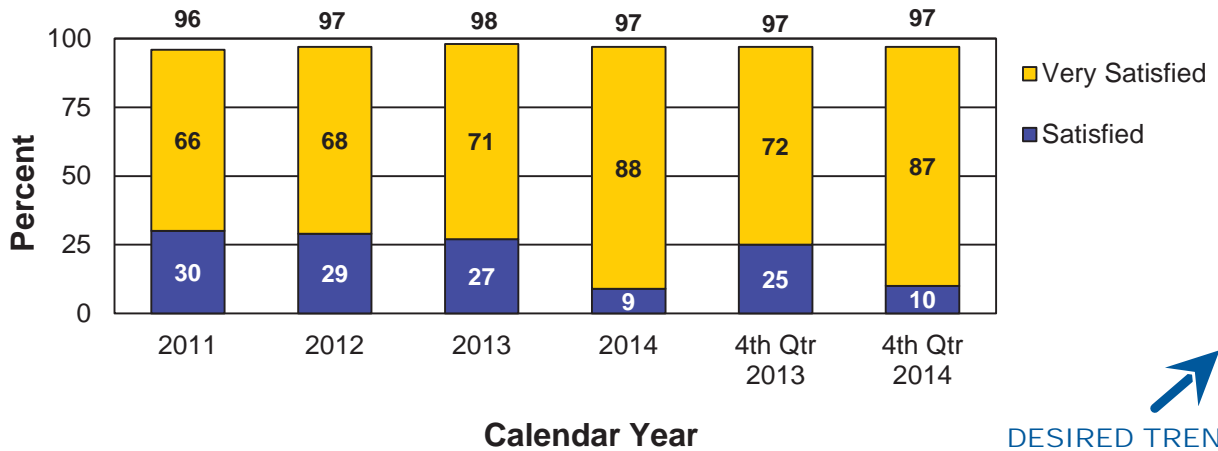
MoDOT actively seeks feedback from the people it serves. In 2012, MoDOT created a statewide call system and enhanced its online call report system that enables customer service representatives to work across seven district boundaries in a one-team approach. Since implementation, customer perceptions of MoDOT's politeness, responsiveness and clarity increased, resulting in an overall improved customer satisfaction.

In the fourth quarter 2014, customers surveyed indicated 85 percent overall satisfaction with MoDOT's handling of their questions or concerns, which is the highest in all compared quarters. Annually we stayed at 83 percent satisfaction compared to 2013. Customers who were satisfied with politeness of responses were at 97 percent both for the quarter and annually. Clarity received the largest drop at 85 percent. Clarity is the lowest out of the all compared quarters as well as annually at 88 percent. Satisfaction with responsiveness of the answers they received went up slightly to 90 percent, but this is a slight decline when compared on an annual basis from 92 percent to 90 percent. The average time to complete customer requests during this quarter increased to 1.7 days. The percent of very satisfied for all categories were at the highest when compared to the same quarter of previous years.

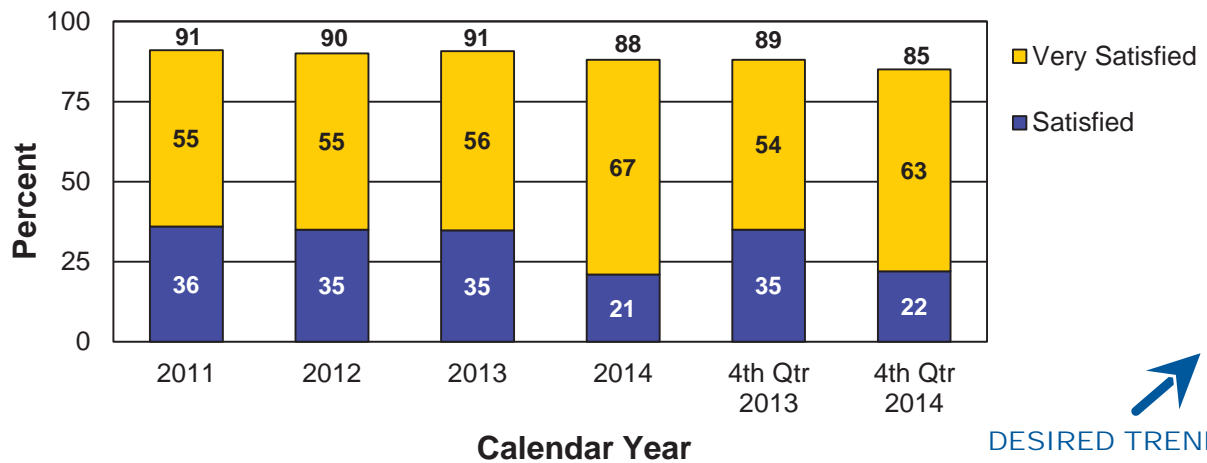


# PROVIDE OUTSTANDING CUSTOMER SERVICE

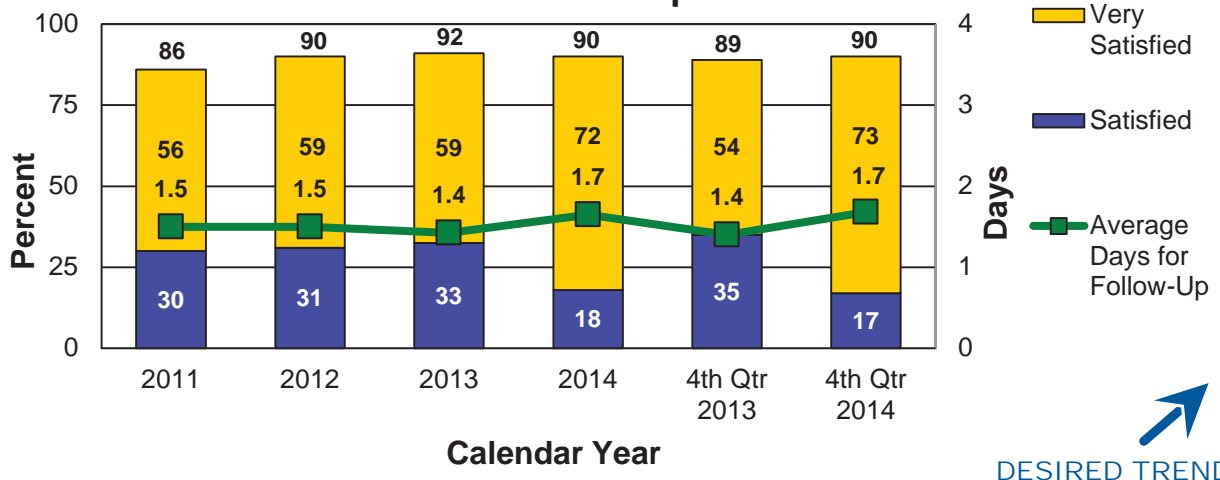
## Customer Satisfaction with Politeness of Staff



## Customer Satisfaction with Clarity of Response



## Customer Satisfaction with Responsiveness



RESULT DRIVER:  
Dan Niec,  
District Engineer

MEASUREMENT  
DRIVER:  
Patrick Wood,  
Customer Relations  
Specialist

PURPOSE OF  
THE MEASURE:  
This measure tracks how  
MoDOT customers receive  
and exchange information  
with the agency.

MEASUREMENT  
AND DATA  
COLLECTION:  
MoDOT gathers informa-  
tion for this measure from a  
variety of sources. These in-  
clude the annual telephone  
survey of approximately  
3,500 randomly selected  
Missourians, Google Analyt-  
ics to measure Web traffic  
and social media analytics.

## PROVIDE OUTSTANDING CUSTOMER SERVICE

### *Percent of customer communication engagement-3g*

Good organizations share information with the people they serve. The best, most trusted organizations engage customers in conversation. It is easier these days for MoDOT to interact with its customers through Internet-based social media networking websites and applications. However, as platforms for storytelling and accountability, print, television and radio continue to serve as a vital information-sharing service.

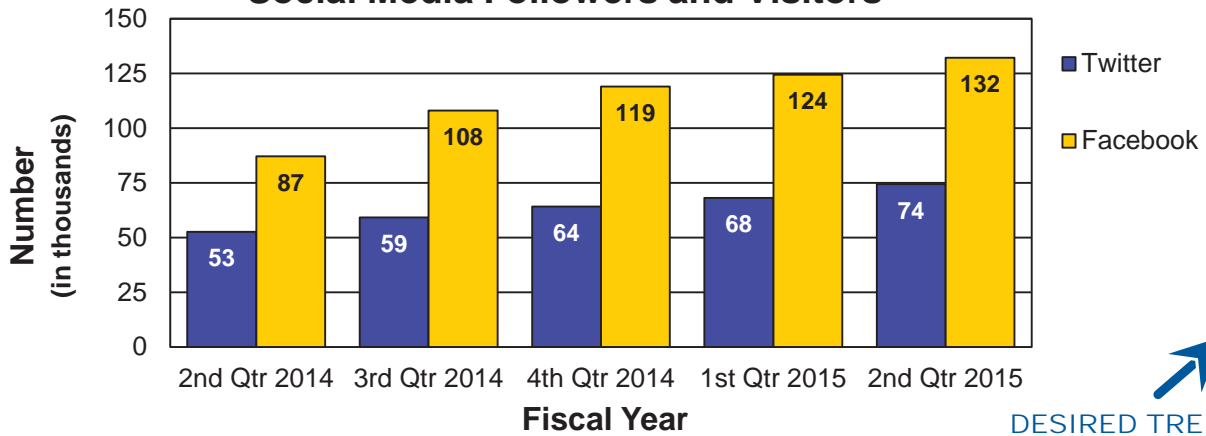
MoDOT's social media accounts continue to attract followers. There was a growth of 7,680 followers on Facebook statewide, and 6,266 additional followers to Twitter statewide. Digital message board-themed information was the most liked, shared and commented on posts during this quarter. The highest user engagement on a post was on a holiday impaired driving post that reached 9,736,192 people, was liked 455,634 times and was shared 155,529 times.

Though new media provides an opportunity to communicate interactively, traditional communication methods remain the most effective way to convey MoDOT messages. In the annual telephone survey, customers said they are most likely to learn about MoDOT projects and activities through highway message boards and trusted local reporters.

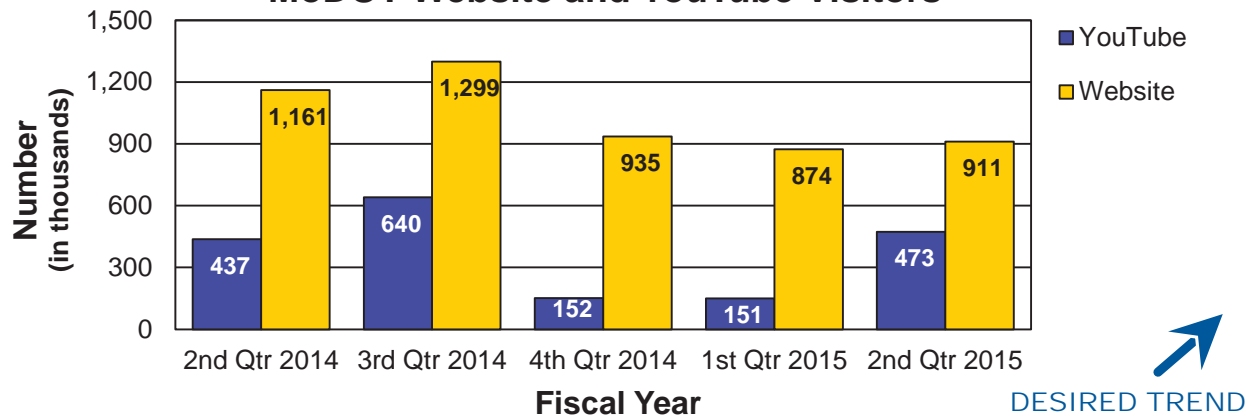


## PROVIDE OUTSTANDING CUSTOMER SERVICE

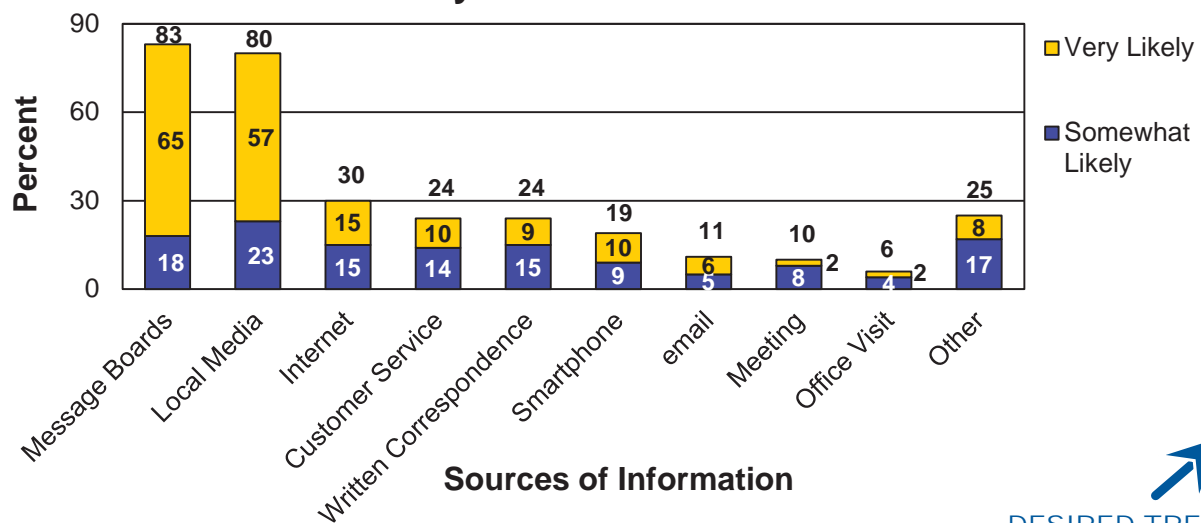
### Social Media Followers and Visitors



### MoDOT Website and YouTube Visitors



### Customer-Reported Likelihood to use MoDOT Project and Activity Information Sources 2013



**RESULT DRIVER:**  
Dan Niec,  
District Engineer

## PROVIDE OUTSTANDING CUSTOMER SERVICE

**MEASUREMENT  
DRIVER:**  
Kelly Backues,  
Senior Organizational  
Performance Analyst

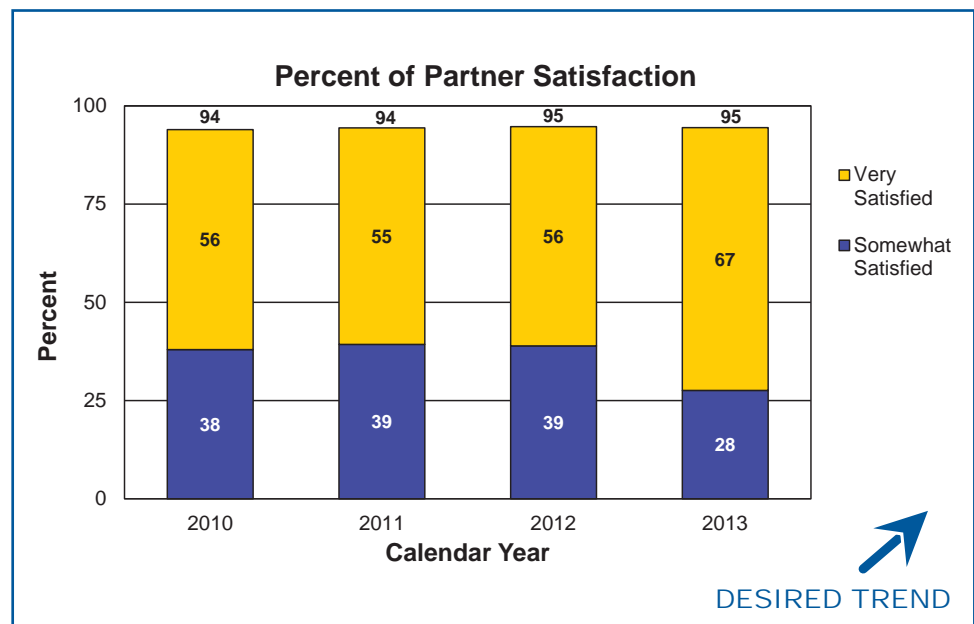
**PURPOSE OF  
THE MEASURE:**  
This measure tracks  
MoDOT's progress toward  
the goal of increasing the  
level of partner satisfaction  
with MoDOT in delivering  
transportation services.

**MEASUREMENT  
AND DATA  
COLLECTION:**  
An independent research  
and survey firm conducted  
an expanded survey in Jan-  
uary 2014, broadening the  
partner groups to include  
agencies and industries in  
nearly all areas of MoDOT.  
The January survey col-  
lects data from the previous  
calendar year and will be  
updated annually in April.

### *Percent of partner satisfaction-3h*

MoDOT relies on a large number of partners to deliver transportation projects and services to Missourians statewide. Each year since 2010, partners have completed an online survey indicating their levels of satisfaction in working with MoDOT. The three-year period from 2010 to 2012 surveyed a specific pool of partners with a very satisfied and satisfied rating of 94 percent or better. With the expanded survey this year, department partners continued the 95 percent satisfaction rate, and the very satisfied partners increased 11 percent compared to the prior year. In addition to rating MoDOT's services, participants can offer written feedback. The information received is used to target specific areas MoDOT can improve.

With diminishing resources that have led to a drastically reduced construction program and suspension of the cost-share program, it is anticipated the condition of Missouri's roads and bridges will deteriorate and dissatisfaction will result.



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# DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

*David Silvester, District Engineer*

 **Tracker**

MEASURES OF DEPARTMENTAL PERFORMANCE



MoDOT customers expect transportation solutions delivered on time and within budget. We manage our projects to get them completed quickly and at the best possible value. We work with our transportation partners to leverage innovation in improving our products and how we work. We pledge to honor our commitments and deliver the best, most cost-effective solutions.

**RESULT DRIVER:**  
David Silvester,  
District Engineer

**MEASUREMENT DRIVER:**  
Renate Wilkinson,  
Planning and Programming  
Engineer

**PURPOSE OF THE MEASURE:**  
This measure determines how close total project completion costs are to the programmed costs. The programmed cost is considered the project budget.

**MEASUREMENT AND DATA COLLECTION:**  
Completed project costs are reported during the fiscal year in which a project is completed. Road and bridge project costs include design, right-of-way purchases, utilities, construction, inspection and other miscellaneous costs. The programmed cost is based on the amount included in the most recently approved Statewide Transportation Improvement Program. Completed costs include actual expenditures. Multimodal and local public agency project costs typically reflect state and/or federal funds, but not local funding contributed toward such projects.

## DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

### *Percent of programmed project cost as compared to final project cost-4a*

The focus on accurate program cost estimates has become increasingly important due to decreasing transportation funding and increasing costs. As of December 31, 2014, 177 road and bridge projects were completed in fiscal year 2015 at a cost of \$1.020 billion. This represents a deviation of 3.09 percent (or \$31 million) greater than the programmed cost of \$990 million. Of the 177 road and bridge projects completed, 64 percent were completed within or below budget. In comparison, 75 percent of projects were completed within or below budget as of the same date a year ago. The largest component of project savings comes from engineering, at \$25 million.



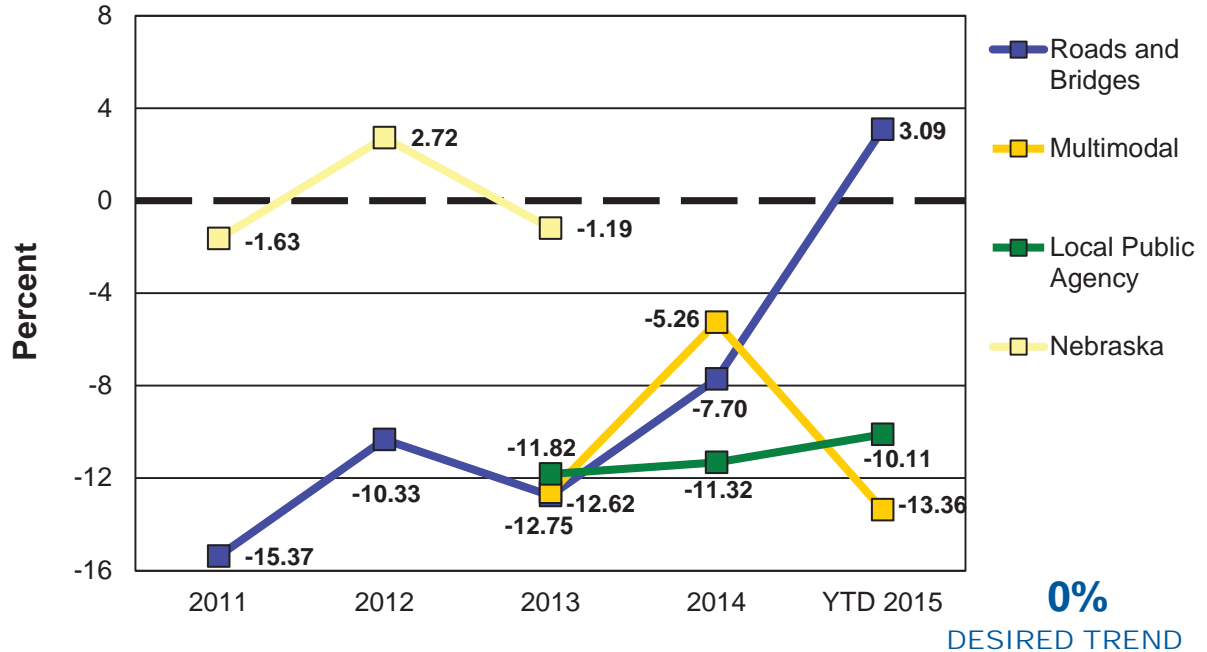
Miscellaneous savings (right of way, utilities and other costs) were \$14 million and construction savings were \$1 million. Award-phase deficits were \$71 million.

In addition, 38 multimodal projects were completed for a cost of \$17.02 million, -13.36 percent or \$2.62 million less than the programmed cost of \$19.64 million. A total of 86 local public agency projects were completed for a cost of \$40.82 million, -10.11 percent or \$-4.59 million less than the programmed cost of \$45.41 million.

MoDOT uses this historical data as a guide for programming future projects. In FY2014, MoDOT added 10 percent of available funding for highway and bridge construction awards or \$68.5 million worth of projects in anticipation of award savings. However, awards for FY2014 were 1 percent higher than programmed. Consequently, the 2015-2019 STIP was developed assuming no award savings. Awards for FY2015 year-to-date are 2 percent or \$8 million higher than programmed values.

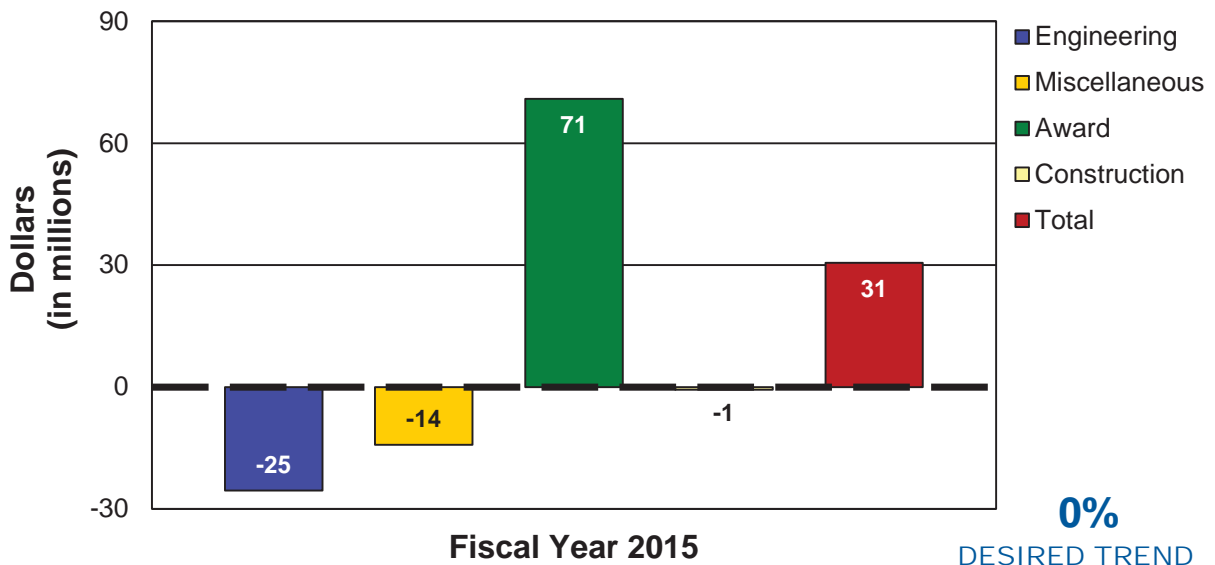
# DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

## Percent of Programmed Project Cost as Compared to Final Project Cost



Positive numbers indicate the final (completed) cost was higher than the programmed cost. Comparative data is from Nebraska Department of Roads, one-year schedule of highway improvement projects.

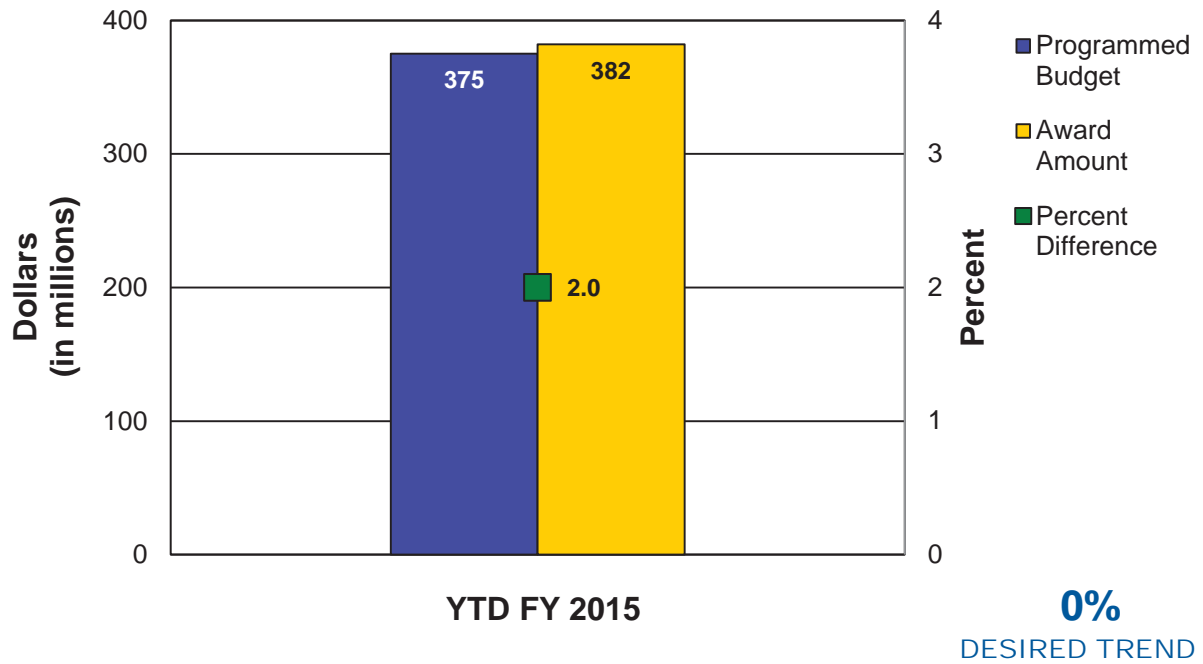
## Final Project Cost Differences by Phase



Negative numbers indicate savings. Miscellaneous includes right of way, utilities and other costs. Amounts include STIP projects only.

# DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

## Percent of Difference in Program vs Award



Amounts include STIP projects with two percent construction contingency applied.

**RESULT DRIVER:**  
David Silvester,  
District Engineer

**MEASUREMENT DRIVER:**  
Jay Bestgen, Assistant  
State Construction and  
Materials Engineer

**PURPOSE OF THE MEASURE:**  
This measure tracks the percentage of projects completed by the commitment date established in the contract. This includes road, bridge, local public agency and multimodal projects – rail, aviation, waterway and transit.

**MEASUREMENT AND DATA COLLECTION:**  
For road and bridge projects, the project manager collaborates with the project team to establish the project completion date, and the resident engineers use the SiteManager system to track and document the work. Local public agencies and multimodal agencies use staff or consultant resources to set contract completion dates and track performance.

## DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

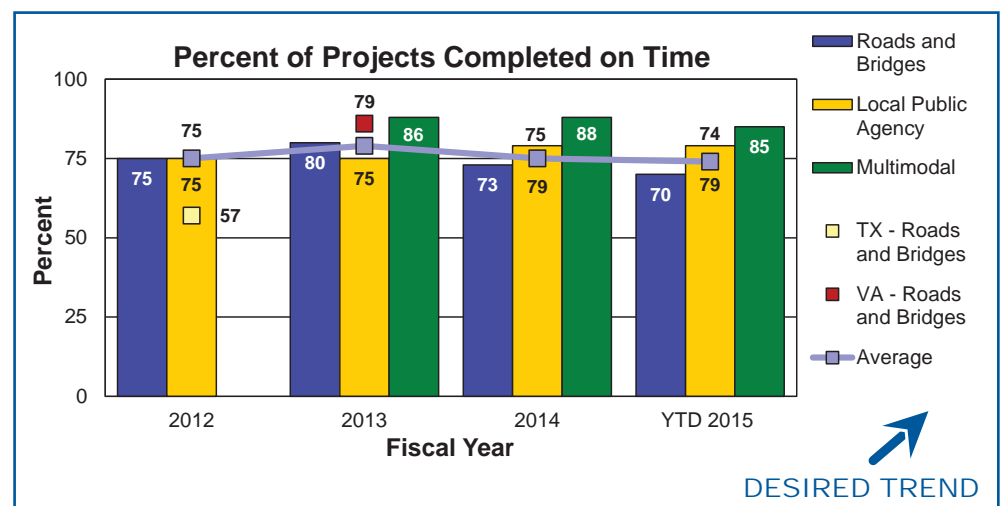
### *Percent of projects completed on time-4b*

MoDOT's customers expect transportation improvements to be completed quickly with minimal impact to their lives. Delivering projects by the contract completion date is the target for all projects and is considered a commitment to Missourians and users. Completing projects on time helps maintain credibility which is of utmost importance to maintaining Missourians' long-term support for times when more resources are needed to adequately maintain the transportation system. Completing projects on time minimizes user exposure to work zones and provides facilities in good condition that improve safety and reduce vehicle maintenance costs.

Sometimes, unusual weather or additional contract work necessitates an extension of the completion date. There also are times when a contractor misses the project completion date. In the first two quarters of fiscal year 2015, 74 percent of the projects were completed on or ahead of schedule.

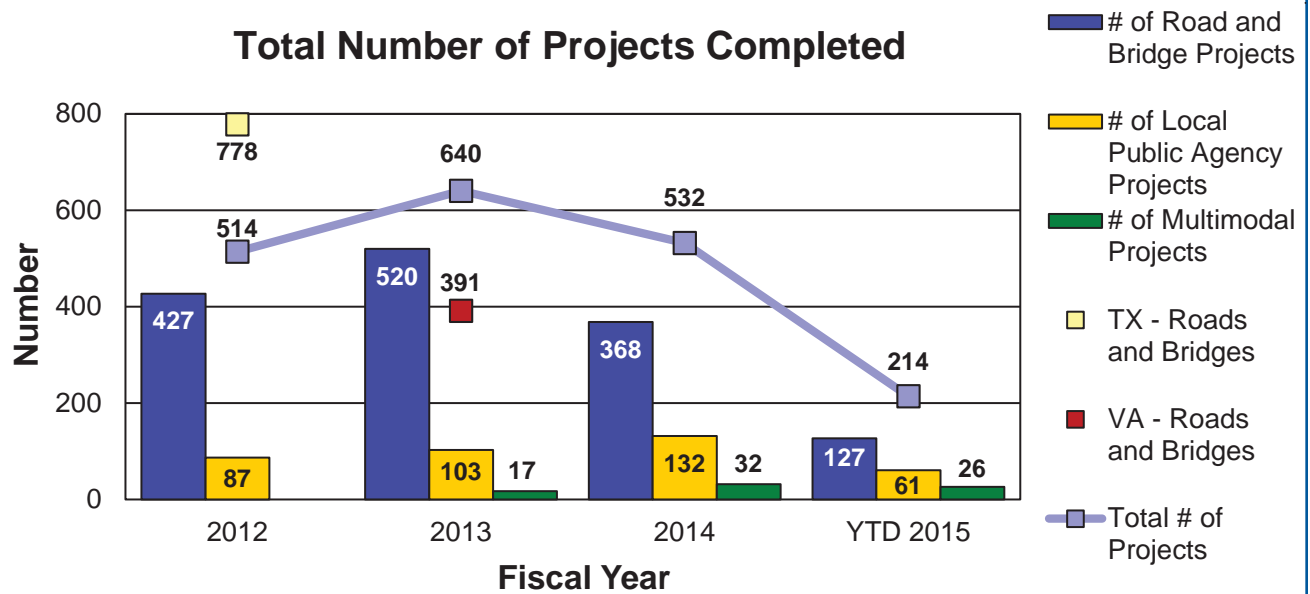
MoDOT works to meet the original completion date by:

- Preparing accurate plans and quantities,
- Setting aggressive, but reasonable completion dates,
- Setting liquidated damages that reinforce completion date without undue bid risks,
- Discussing potential completion times with industry before setting, and
- Negotiating with contractor to maintain schedule.

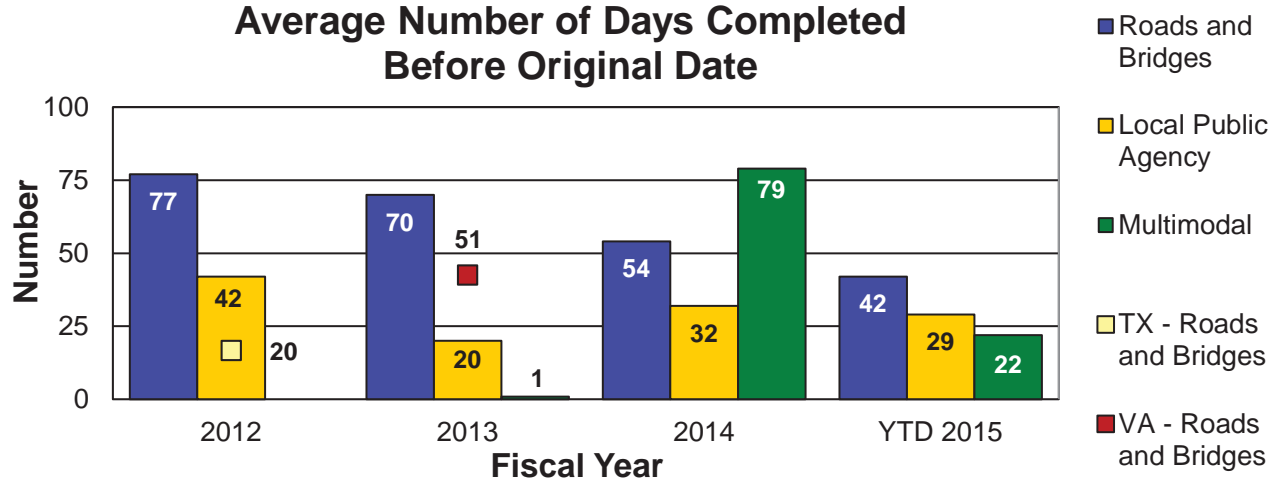


# DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

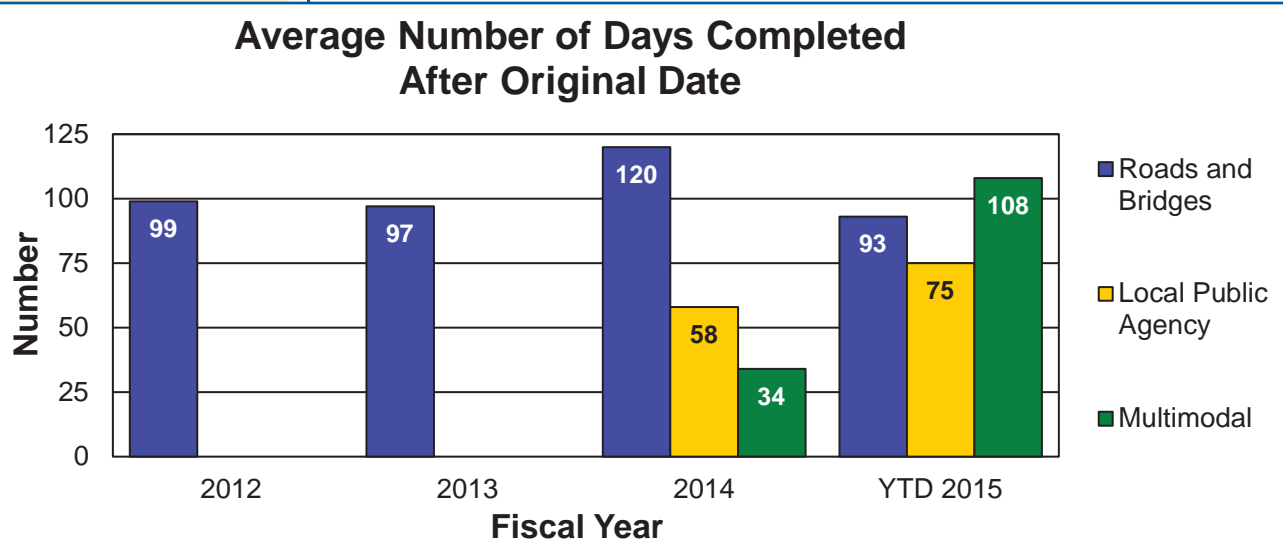
## Total Number of Projects Completed



## Average Number of Days Completed Before Original Date



## Average Number of Days Completed After Original Date



**RESULT DRIVER:**  
David Silvester,  
District Engineer

## DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

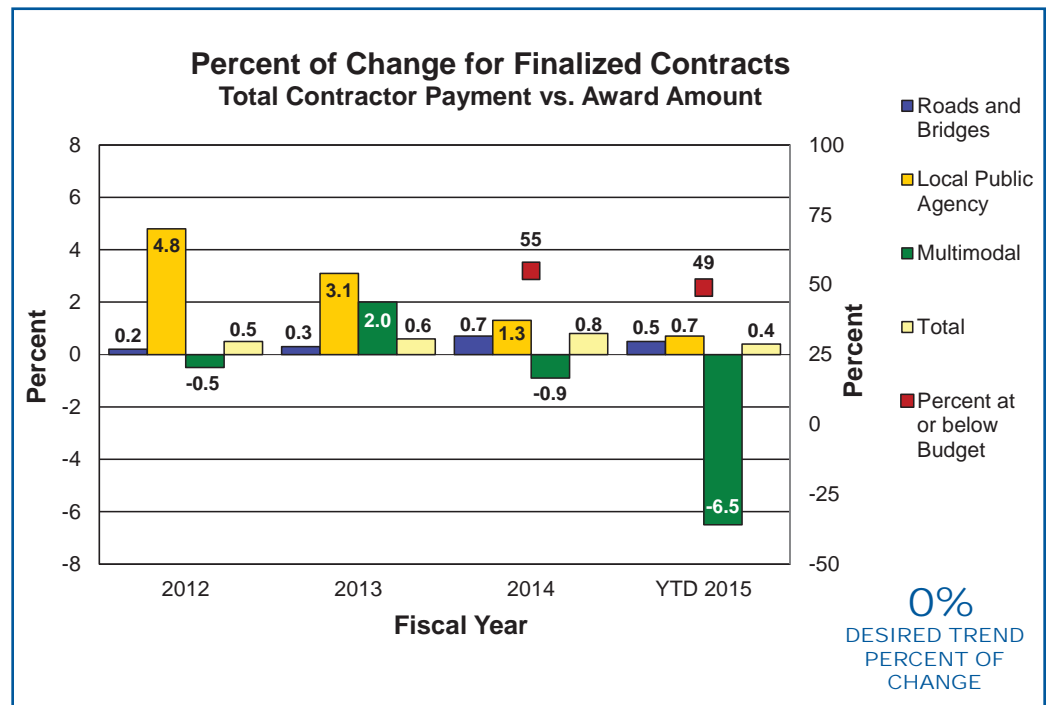
**MEASUREMENT  
DRIVER:**  
Jeremy Kampeter,  
Construction Management  
Systems Administrator

**PURPOSE OF  
THE MEASURE:**  
This measure tracks the percentage difference of total construction payouts to the original contract award amounts. This indicates how many changes are made on projects after they are awarded to the contractor. This measure evaluates road, bridge, local public agency and multimodal projects – rail, aviation, waterway and transit.

**MEASUREMENT  
AND DATA  
COLLECTION:**  
For road and bridge projects, contractor payments are generated through MoDOT's SiteManager database and processed in the financial management system for payment. Change orders document the underrun/overrun of the original contract cost. Local public agencies and multimodal agencies use staff or consultant resources to set contract completion dates and track performance.

### *Percent of change for finalized contracts-4c*

By limiting overruns on contracts, MoDOT can continue to keep its commitments. Decreasing transportation funding coupled with the increasing costs of products such as asphalt, concrete and steel has placed an even stronger emphasis on constructing projects within budget. This emphasis combined with the use of practical design and value engineering has contributed to limiting overruns on contracts. MoDOT's performance in the first two quarters of fiscal year 2015 was 0.4 percent (\$554 million worth of projects completed \$2.4 million over the award amount). Many factors can affect the ability to complete a project within 2 percent of the award amount.



## RESULT DRIVER:

David Silvester,  
District Engineer

# DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

## MEASUREMENT DRIVER:

David Simmons,  
Transportation  
Project Manager

## PURPOSE OF THE MEASURE:

This measure tracks the use of innovative contracting methods on MoDOT projects including:

- A + B Contracts,
- Alternate Technical Concepts, and
- Design-Build Contracts

## MEASUREMENT AND DATA COLLECTION:

MoDOT projects utilizing innovative contracting methods are reported during the fiscal year in which they are awarded. Contract award values are collected through MoDOT's bid opening summaries and project records.

## *Innovative contracting methods-4d*

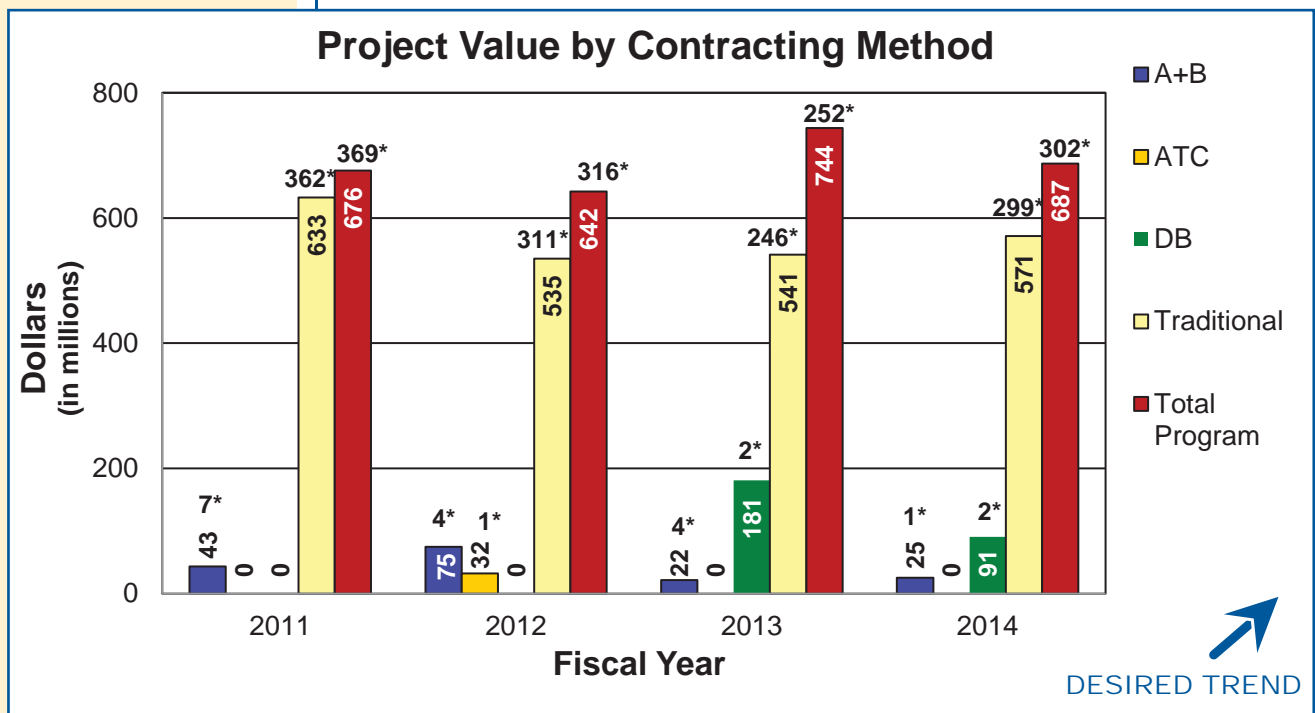
With decreasing transportation funding and increasing costs, MoDOT looks to implement non-traditional methods and practices in contract procurements to improve efficiency, increase flexibility and maximize value for its customers. By promoting the use of innovative contracting tools, MoDOT is better able to mitigate declining resources and meet each project's unique challenges and to provide the best-value solution to the needs being addressed. MoDOT uses innovative contracting to ensure the public receives full value for every tax dollar invested in Missouri's transportation system. However, dwindling resources will result in a dramatic reduction in the number of large-scale, system-improvement projects MoDOT can afford. Even with innovative contracting techniques, MoDOT will be challenged to simply maintain the current system.

When selecting a project delivery method and innovative contracting options, MoDOT takes into account project characteristics (risks) such as project size (cost), type (preservation, rehabilitation or reconstruction) and complexity (urban or rural, significant traffic impact, number of project elements). Innovative contracts promote accelerated project completion or facilitate achievement of other performance objectives. MoDOT's A+B, ATC and Design-Build contracting methods change how projects are procured and delivered. The advantages of MoDOT's innovative contracting methods are as follows:

- Cost-plus-time bidding (A + B) aims to expedite project completion through competitive bidding on construction time (days).
- Alternate Technical Concepts (ATCs) give the contractor the opportunity to provide an alternate more-cost-effective design prior to the bid. ATC discussions are held in a confidential environment which maximizes competitive bidding. The low bid is awarded the contract.
- Design-Build (DB) contracts include design and construction under one contract, which is procured using a two-phased, contractor-selection process. MoDOT scores proposals using a best-value or "build-to-budget" scoring scenario. Nationally, Design-Build projects are completed 33 percent faster and 6 percent cheaper than conventional Design-Bid-Build projects.

In fiscal year 2014, MoDOT delivered three out of 302 projects using innovative contracting methods, with two being delivered as Design-Build and one being delivered as A + B. The three projects accounted for \$115 million of the \$687 million program.

# DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE



\*Reflects total number of projects for each innovative contract method

RESULT DRIVER:  
Dave Silvester,  
District Engineer

MEASUREMENT  
DRIVER:  
Llans Taylor,  
Innovations Engineer

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
use of value engineering  
during design and construc-  
tion on traditional MoDOT  
projects including:  
■ Value analysis during the  
design phase, and  
■ Construction value en-  
gineering proposals during  
the construction phase.  
■ Implementation of best  
practice into our standards  
and policies.

MEASUREMENT  
AND DATA  
COLLECTION:  
Information on value analy-  
sis during design is gath-  
ered from MoDOT's STIP  
information management  
system. Construction value  
engineering change pro-  
posal information is gath-  
ered from MoDOT's VECP  
database. Implementation  
of best practice progress is  
tracked by MoDOT staff.

## DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

### *Value Engineering-4e*

The goal of value engineering is to build the right project at the right time, meeting the project need with appropriate project scope. MoDOT uses the VE program to ensure the public receives great value for every tax dollar invested in Missouri's transportation system. Due to decreasing funding, MoDOT is increasingly focused on smaller, maintenance-type projects that are not traditionally targeted by the VE program. Still, MoDOT must be innovative in utilizing the VE process to search for solutions to reduce project costs and provide additional value.

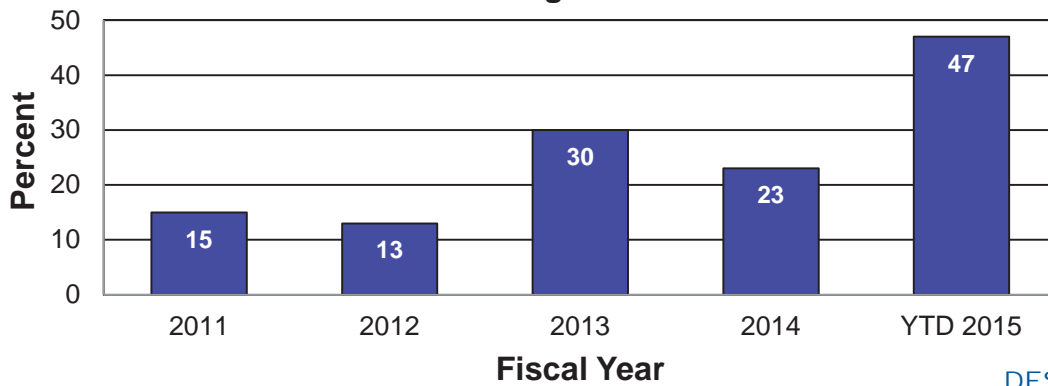
MoDOT uses design-phase value analysis to remove unnecessary scope, reduce project costs and to improve project flexibility. Value analysis includes specific, targeted processes aimed to improve the project value, including the formal VE program studies. Tracking progress toward the goal of evaluating all projects for value allows MoDOT to accurately gauge its performance. For the first two quarters of FY2015, 47 percent of projects underwent some form of value analysis during design. A significant portion of this progress was a direct result of programmatic value analysis studies associated with the level-course and chip-seal programs.

MoDOT partners with industry to find more cost-effective methods to accomplish proposed project work. During the construction phase, the VECP process encourages contractors to submit proposals to deliver improved projects. After award of a project, contractor proposals are considered. If accepted, contractors receive up to a maximum of 50 percent of the savings. For the first two quarters of FY2015, 17 VE proposals were approved resulting in MoDOT savings of \$876,000. Although still low in comparison to a five-year average, this does compare favorably to the first two quarters of FY2014 in which there were 17 approved VE proposals for a total savings of \$560,000. As an effort to ensure each submittal has the greatest opportunity for approval, MoDOT has adopted engineering policy changes to allow contractors a second review of any denied submittals.

A successful VECP program incorporates approved VECPs into future projects, so MoDOT can realize all of the affiliated savings. A multi-disciplinary team reviews approved VECPs in order to integrate the approved concepts into engineering policies, standards and specifications. In addition to previous reviews of fiscal years 2012 and 2013, the team has considered each approved VECP approved in fiscal year 2014 to determine if there was an opportunity to improve the way MoDOT does business. To date, 167 approved VECPs have been reviewed with two changes implemented and 24 potential revisions still being investigated. The team continues to meet to review approved VECPs for potential implementation and works to develop improved policies.

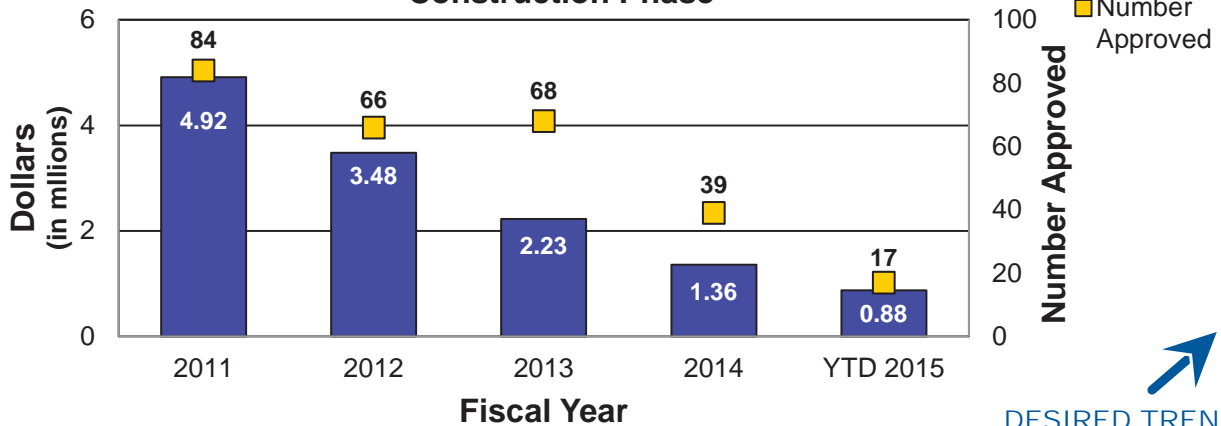
# DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

## Percent of Awarded Projects with Value Analysis Design Phase



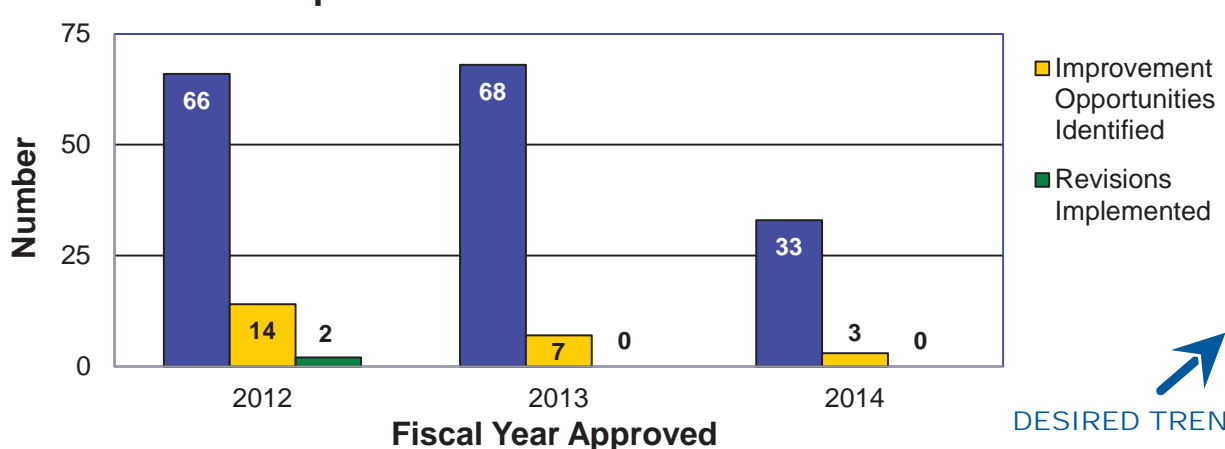
DESIRED TREND

## Value Engineering Change Proposals by Dollar and Number Construction Phase



DESIRED TREND

## Value Engineering Changes Implemented as Best Practice



DESIRED TREND

**RESULT DRIVER:**  
David Silvester,  
District Engineer

**MEASUREMENT DRIVER:**  
Jason Vanderfelt,  
Bidding and Contract  
Services Engineer

**PURPOSE OF THE MEASURE:**  
This measure tracks the costs to construct a variety of common highway and bridge construction projects including the costs for equipment, labor and fringe benefits and materials to construct a project.

**MEASUREMENT AND DATA COLLECTION:**  
Data is collected from MoDOT bid opening prices. Construction costs for 1992 are used for comparison because that was the year Missouri's fuel tax was increased to the current rate of 17 cents per gallon. Costs for chip seal and minor road one-inch asphalt resurfacing include the pavement, traffic control and temporary pavement marking. Costs for major highway and interstate asphalt resurfacing include the pavement, traffic control, permanent pavement marking, rumble strips, pavement repair, guardrail and signing. New two-lane and four-lane construction costs include grading, drainage, pavement, bridge and all incidental costs. The average cost per square-foot of bridge is tabulated and applied to the area of the average bridge on the state system to simplify comparison.

## DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

### *Average highway lane-mile and bridge construction costs-4f*

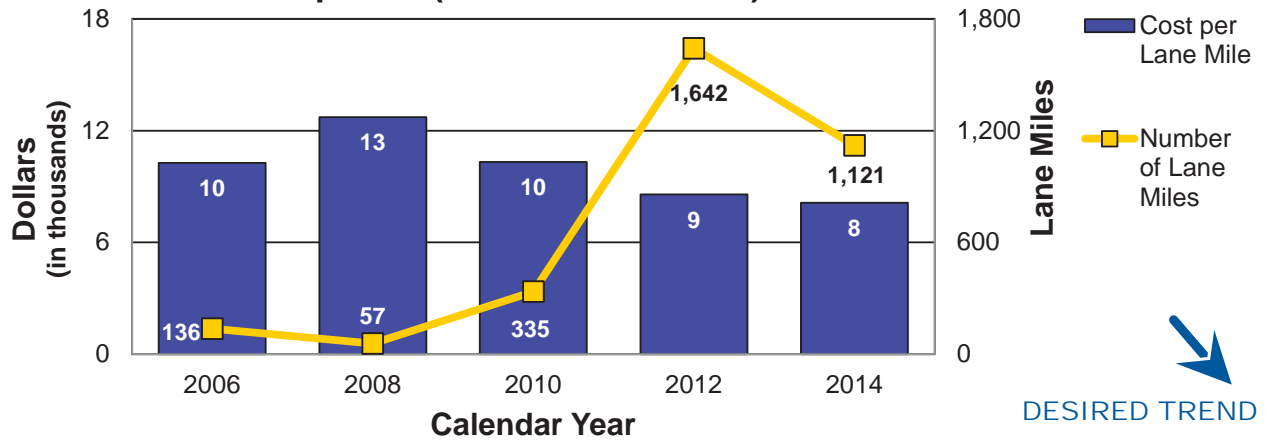
A great many factors affect the cost of road and bridge projects, some can be managed by MoDOT, and others are affected by the economy. For example, Missouri's highway system has long depended on fuel taxes, but consumers look for ways to decrease their personal transportation costs by driving less and turning to smaller, more fuel-efficient vehicles. Since these vehicles cost less, sales taxes are lower, resulting in lower transportation revenues. Meanwhile, inflation has increased the cost of projects, resulting in reduced purchasing power for MoDOT. Minor road asphalt resurfacing costs have increased in recent years due to a combination of fluctuating fuel and oil prices and increased material costs. Overall, the prices of asphalt, concrete and steel are double and triple what they were 20 years ago.

With MoDOT's construction program having dropped from \$1.3 billion in 2009 to \$720 million in fiscal year 2015, few complex two- and four-lane projects have been available for contractors to bid. For the larger, more robust projects, MoDOT continues to partner with industry to allow flexibility and encourage innovation while strategically scheduling bid openings to spread out the amount of work and financial obligation for the bidders. With decreasing revenue and increasing costs, MoDOT is challenged to make improvements to the existing system. MoDOT is being challenged just to maintain the system of roads and bridges Missourians enjoy today.



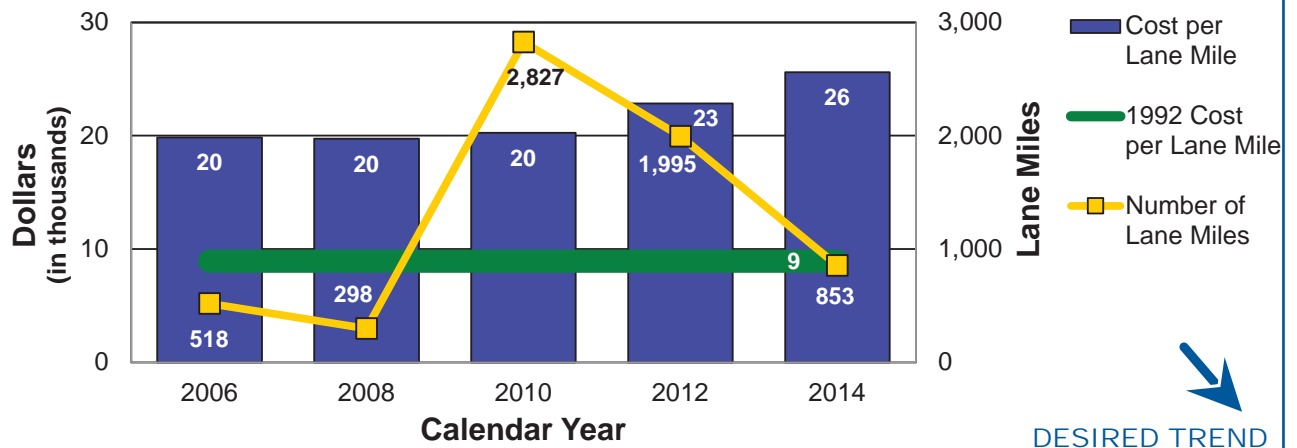
# DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

## Chip Seal (10-Foot Lane-Mile)

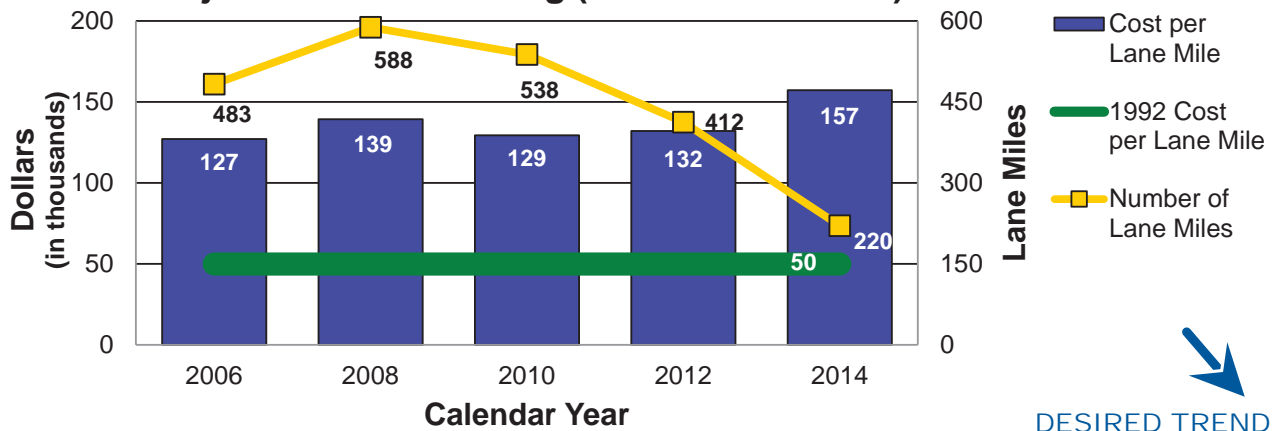


Note: No contract chip seal projects in 1992.

## Minor Road Resurfacing (11-Foot Lane-Mile)

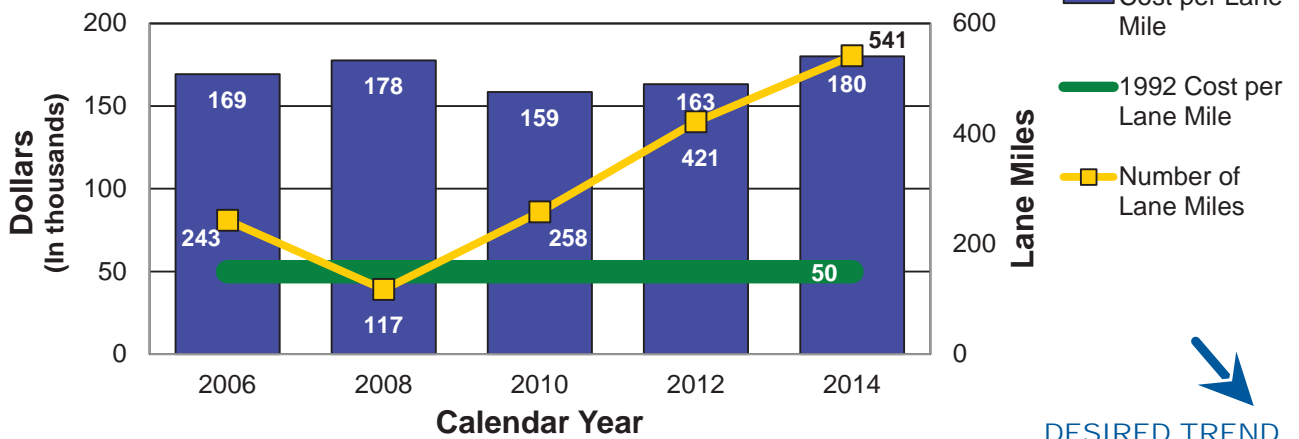


## Major Road Resurfacing (12-Foot Lane Mile)

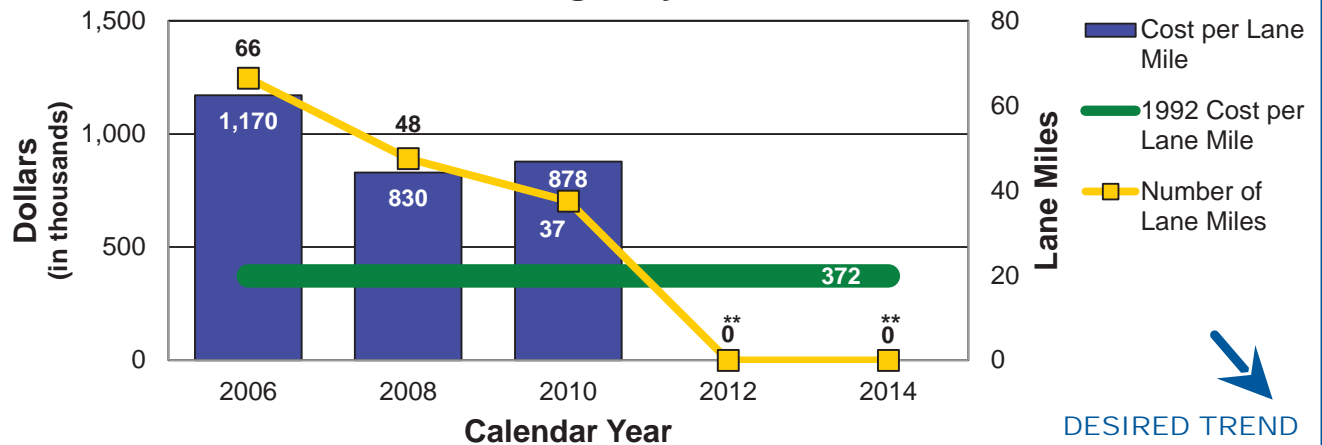


# DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

## Interstate Resurfacing (12-Foot Lane Mile)

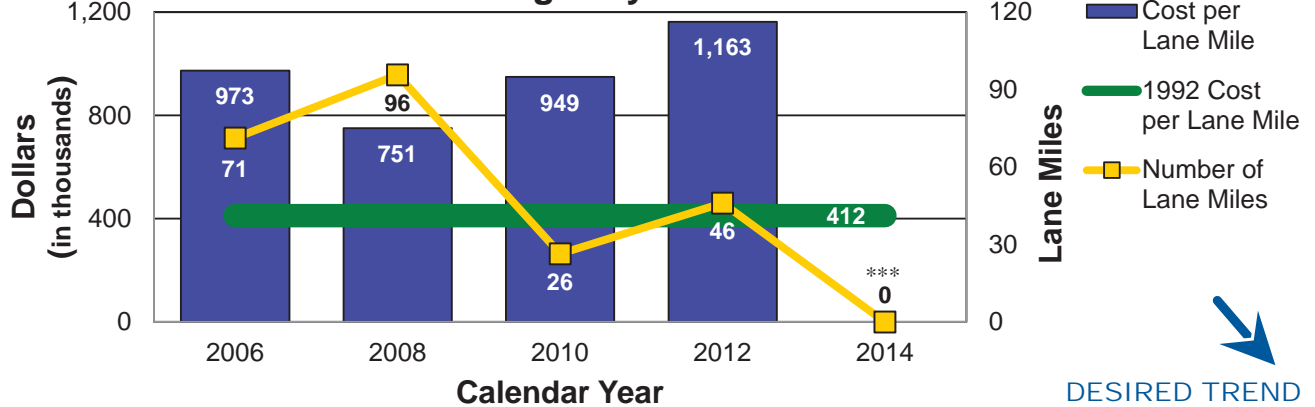


## New Two-Lane Highway Construction



\*\* No two-lane projects bid in 2012, 2013, and 2014.

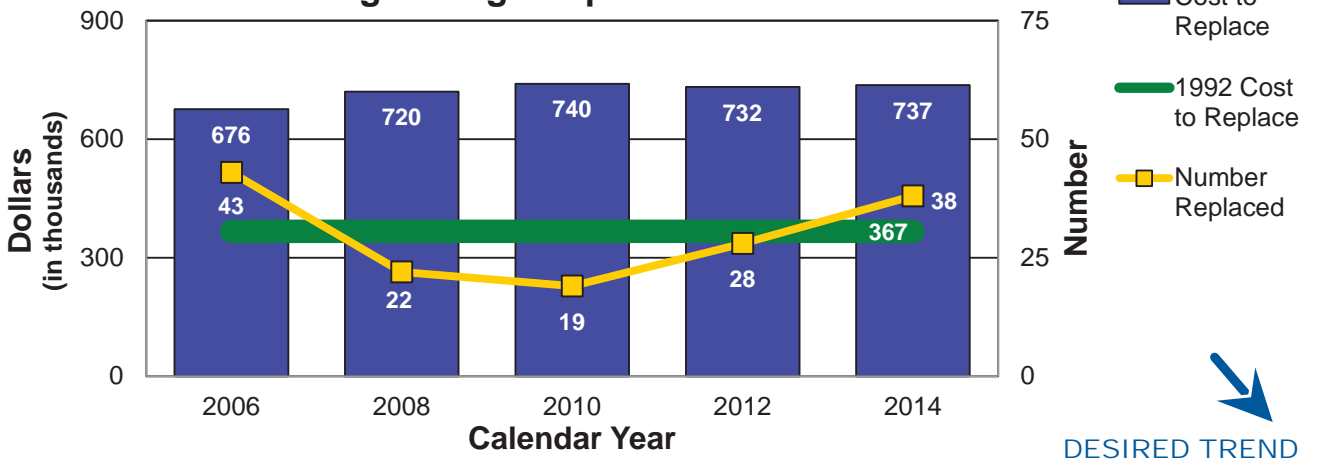
## New Four-Lane Highway Construction



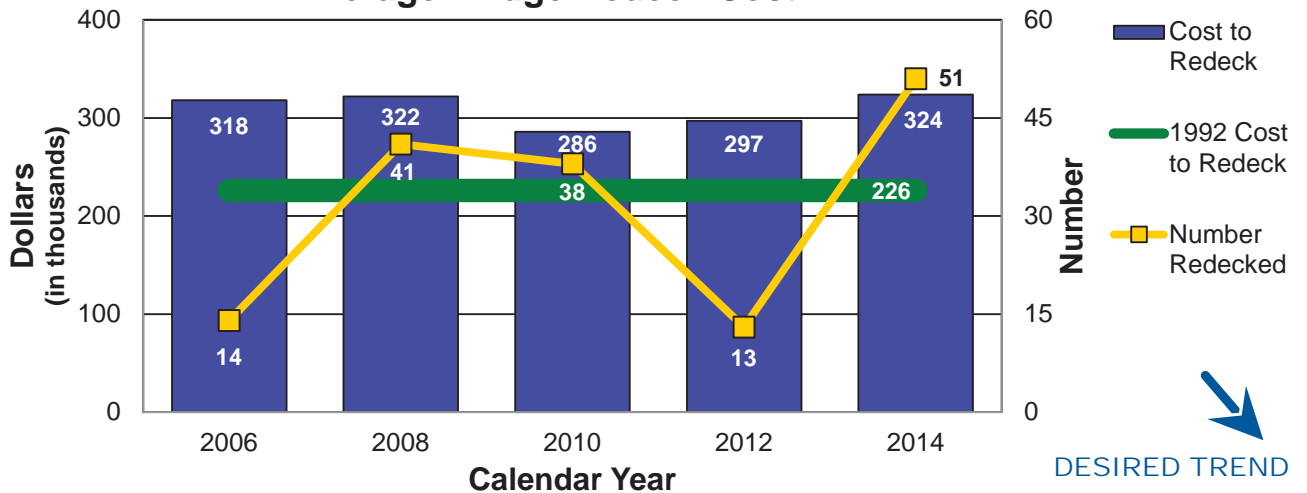
\*\*\* No four-lane projects bid in 2013 and 2014.

# DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

## Average Bridge Replacement Cost



## Average Bridge Redeck Cost





# OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

*Paula Gough, District Engineer*

**Tracker**

MEASURES OF DEPARTMENTAL PERFORMANCE



Missourians expect to get to their destinations on time, without delay regardless of their choice of travel mode. We coordinate and collaborate with our transportation partners throughout the state to keep people and goods moving freely and efficiently. We also maintain and operate the transportation system in a manner to minimize the impact to our customers and partners.

RESULT DRIVER:  
Paula Gough,  
District Engineer

## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

MAP-21

### MEASUREMENT DRIVER:

Jon Nelson,  
Traffic Management and  
Operations Engineer

### PURPOSE OF THE MEASURE:

This measure tracks the mobility of significant state routes in St. Louis, Kansas City, Springfield and Columbia.

### MEASUREMENT AND DATA COLLECTION:

Travel time data for most state routes is collected via roadside detectors and other technologies. For a few routes, travel times are collected manually by driving the route at least twice in each direction. To assess mobility, MoDOT compares travel times during rush hour to free-flow conditions where vehicles can travel at the posted speed limit. This measure also assesses reliability, an indicator of how variable those travel times are on a daily basis. The charts in this measure show the average travel time and the 95th percentile travel time, which is the time motorists should plan in order to reach their destinations on time 95 percent of the time. The maps display the mobility of specific sections of roadways during rush hour.

### *Travel times and reliability on major routes-5a*

The desired outcome for any route is safe traffic flow at the posted speed limit. From October to December 2014, the average 10-mile travel time in St. Louis was 10.51 minutes during morning rush and 11.09 minutes during evening rush. For Kansas City, the average travel time was 10.47 minutes during the morning and 10.86 minutes during the evening. All average travel times increased from last quarter.

Individual freeway segments within St. Louis and Kansas City experienced significantly longer travel times than the regional averages. For example, during the morning rush, I-270 northbound between I-55 and Route 100 had an average 10-mile travel time around 18 minutes. During the evening rush, portions of I-64 and I-170 experienced travel times more than twice as long as free-flow conditions. Likewise, in Kansas City, westbound I-70 approaching I-435 had an average 10-mile travel time of about 16 minutes during the morning rush, while eastbound I-70 had an average travel time over 17 minutes during the evening rush.

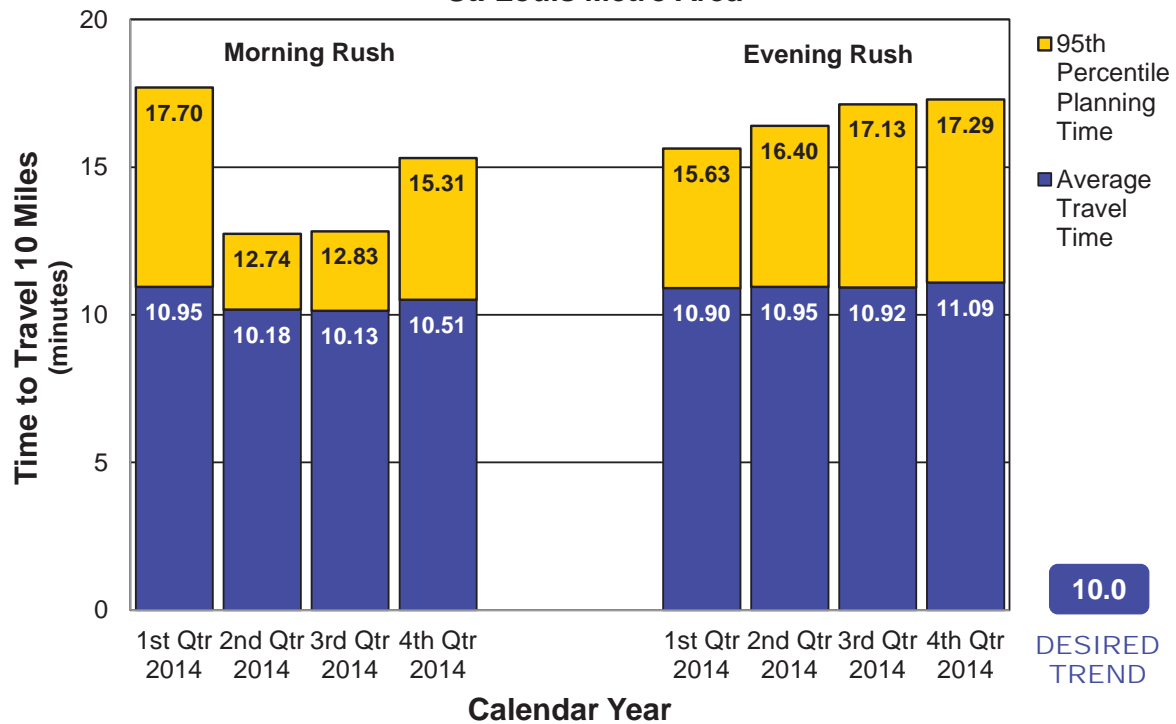
Average 10-mile planning times for the entire regions this quarter ranged from 13.63 minutes in Kansas City during the morning rush to 17.29 minutes in St. Louis during the evening rush. The 95th percentile planning time in St. Louis during the morning rush saw a significant increase from last quarter indicating travel during that time was less reliable this quarter than it was the previous two quarters. Once again, individual freeway segments experienced even longer planning times. During the worst days, customers needed to plan four to five times the amount of time needed to travel during free-flow conditions. Some of the most unreliable segments this quarter during the morning rush were I-270 northbound near I-44, I-64 westbound east of I-170, I-70 westbound between I-470 and I-435 in Kansas City, I-470 westbound west of I-49, and I-35 southbound west of I-435. During the evening rush, the most unreliable segments included I-64 between Chesterfield and downtown, I-170 westbound between I-70 and I-64, I-70 eastbound in Kansas City, and I-435 north of I-70.

Arterials that experienced low mobility during the quarter included: portions of Route 21 and Route 141 in St. Louis and Stadium Blvd. in Columbia during the morning rush; portions of Route 94, Route 141, and Page Ave in St. Louis, Route 13 in Springfield, and Route AC and Stadium Blvd. in Columbia during the evening rush.

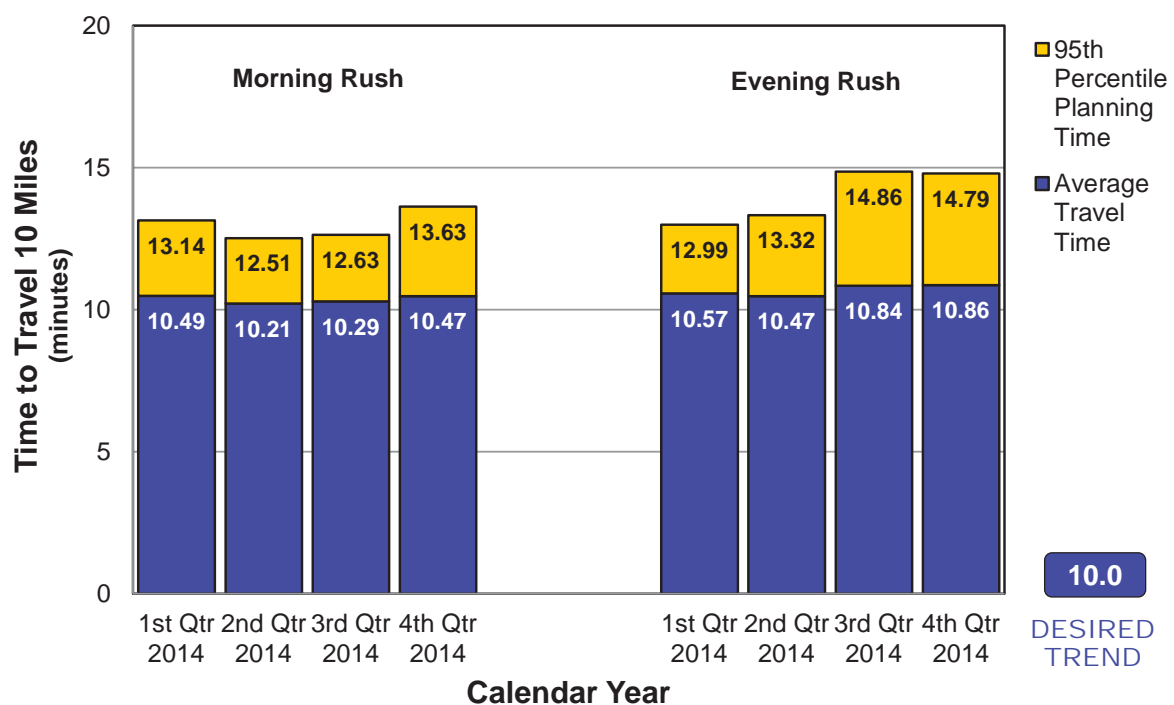
As MoDOT's construction budget continues to shrink over the next few years, the department will have limited opportunities to invest in projects that improve traffic flow and reliability on Missouri's busiest roadways.

# OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

## Reliability of Travel Times for Freeways St. Louis Metro Area

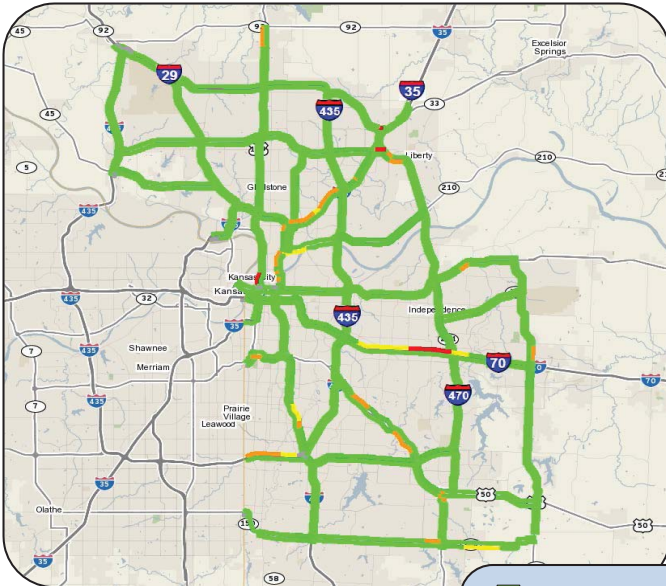


## Reliability of Travel Times for Freeways Kansas City Metro Area

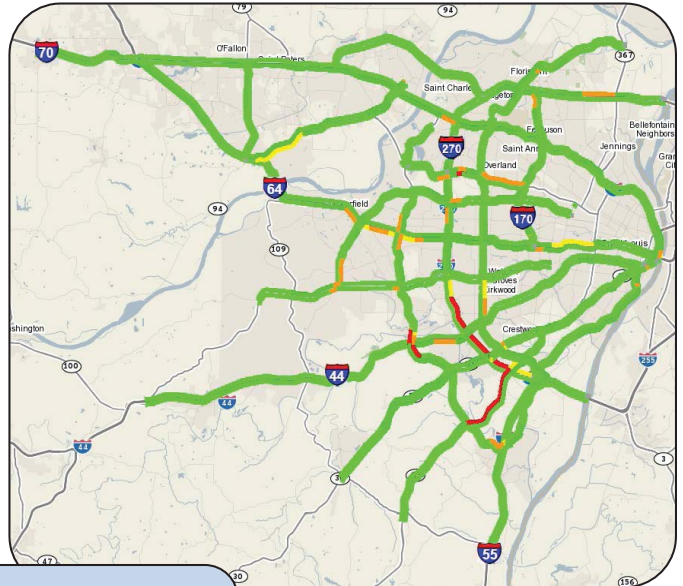


# OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

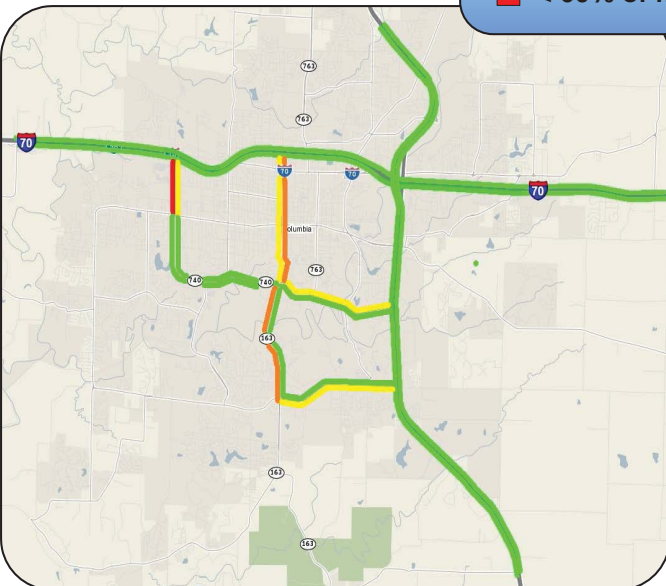
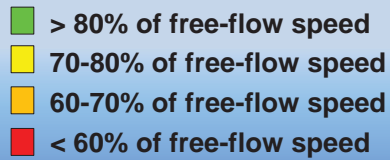
## AM Mobility



Kansas City Area



Saint Louis Area



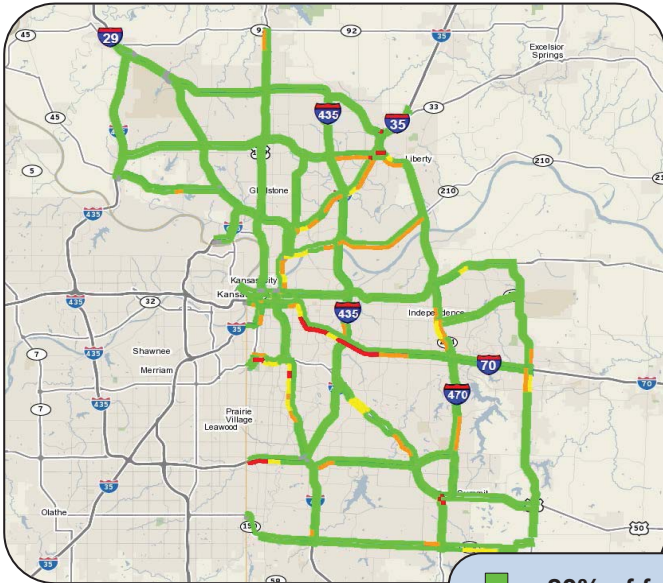
Columbia Area



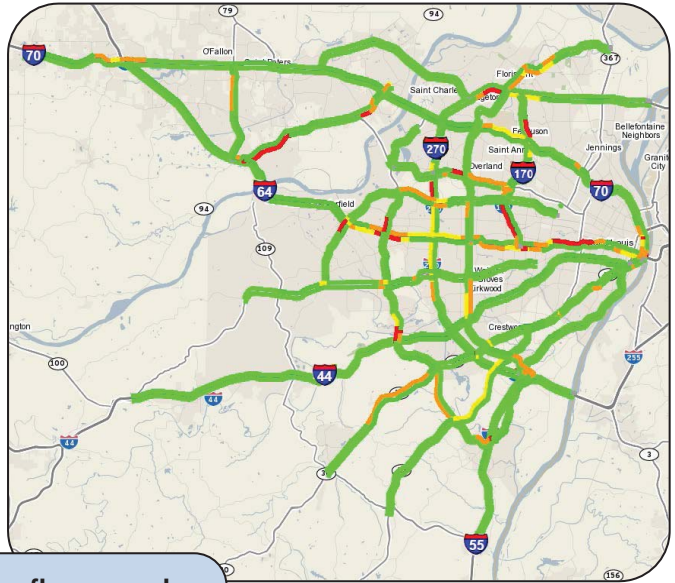
Springfield Area

# OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

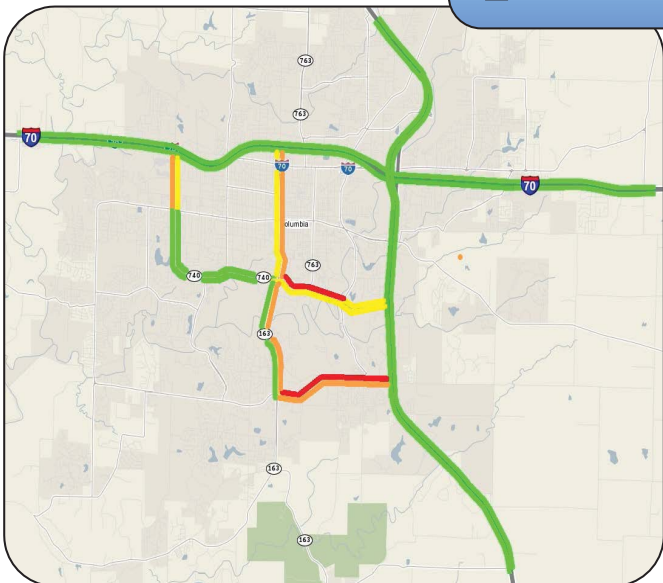
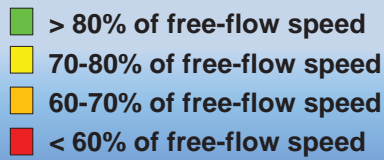
## PM Mobility



Kansas City Area



Saint Louis Area



Columbia Area



Springfield Area

RESULT DRIVER:  
Paula Gough,  
District Engineer

## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

MAP-21

MEASUREMENT  
DRIVER:  
Jeanne Olubogun,  
District Traffic Engineer

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
annual cost and impact of  
traffic congestion to motor-  
ists in the areas of motorist  
delay, travel time, excess  
fuel consumed per auto  
commuter and congestion  
cost per auto commuter.

MEASUREMENT  
AND DATA  
COLLECTION:  
For previous reporting,  
the department used data  
provided by the Texas A&M  
Transportation Institute,  
which annually produces  
the Urban Mobility Report.  
Beginning with the October  
2014 edition of Tracker, a  
new source of data from  
RITIS is available. A report-  
ing tool available in RITIS  
looks at user delay costs,  
but the department must  
work through the data to  
better understand it before  
presenting it here. RITIS  
also includes historic data,  
so trend lines can be  
tracked and evaluated.

### *Cost and impact of traffic congestion-5b*

Recurring congestion occurs at regular times, although the traffic jams are not necessarily consistent day-to-day. Nonrecurring congestion is an unexpected traffic crash or natural disaster that affects traffic flow. When either occurs, the time required for a given trip becomes unpredictable. This unreliability is costly for commuters and truck drivers moving goods, which results in higher prices to consumers.

While the desired trend for both costs is downward, challenges exist in Missouri's metropolitan regions to continue toward this desired outcome. A comprehensive look at congestion is needed, and looking beyond typical solutions of adding capacity is needed. As the department adapts to shrinking revenue streams, the capacity for adding projects will be scarce. Using smarter technology to help guide motorists is a must. Still, the desired outcome is lower congestion costs and an indication that traffic is moving more efficiently.

#### Cost and Impact of Traffic Congestion

**UNDER DEVELOPMENT**

RESULT DRIVER:  
Paula Gough,  
District Engineer

MEASUREMENT  
DRIVER:  
Randy Johnson,  
Traffic Center Manager

PURPOSE OF  
THE MEASURE:  
This measure is used to  
determine the trends in inci-  
dent clearance on the state  
highway system.

MEASUREMENT  
AND DATA  
COLLECTION:  
Advanced transportation  
management systems are  
used by the Kansas City  
and St. Louis traffic man-  
agement centers to record  
incident start time and the  
time when all lanes are  
declared cleared.

## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

### *Average time to clear traffic incident-5c*

A traffic incident is an unplanned event that blocks travel lanes and temporarily reduces the number of vehicles that can travel on the road. The speed of incident clearance is essential to the highway system returning back to normal conditions. Responding to and quickly addressing the incident (crashes, flat tires and stalled vehicles) improves system performance.

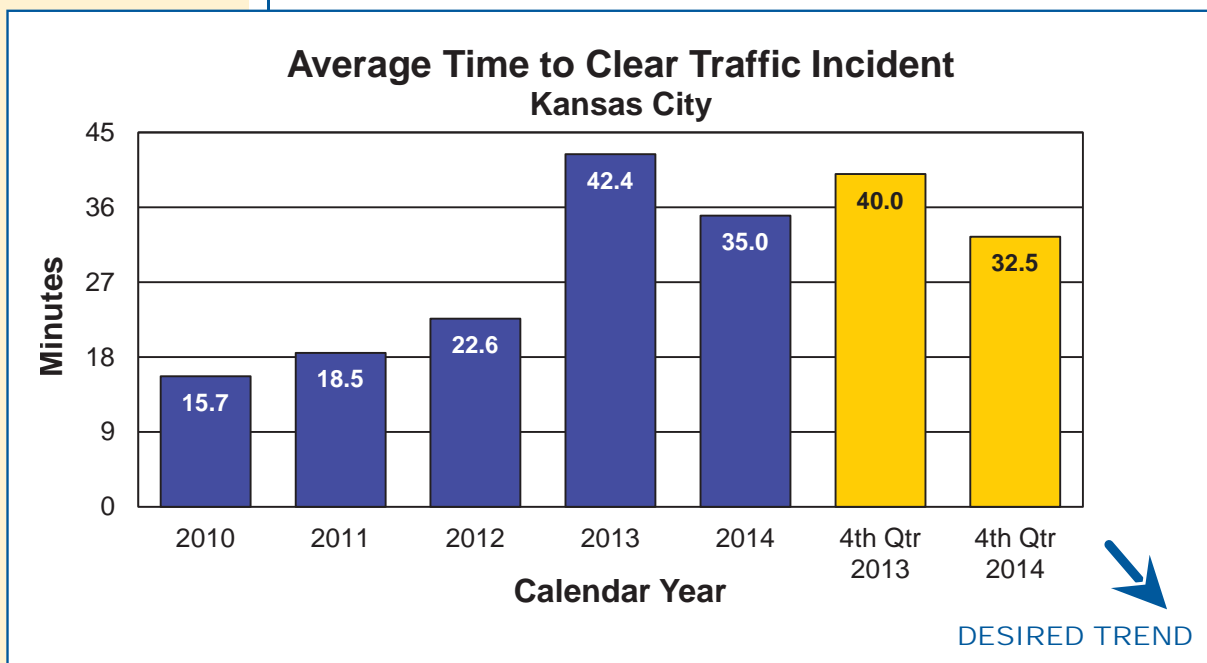
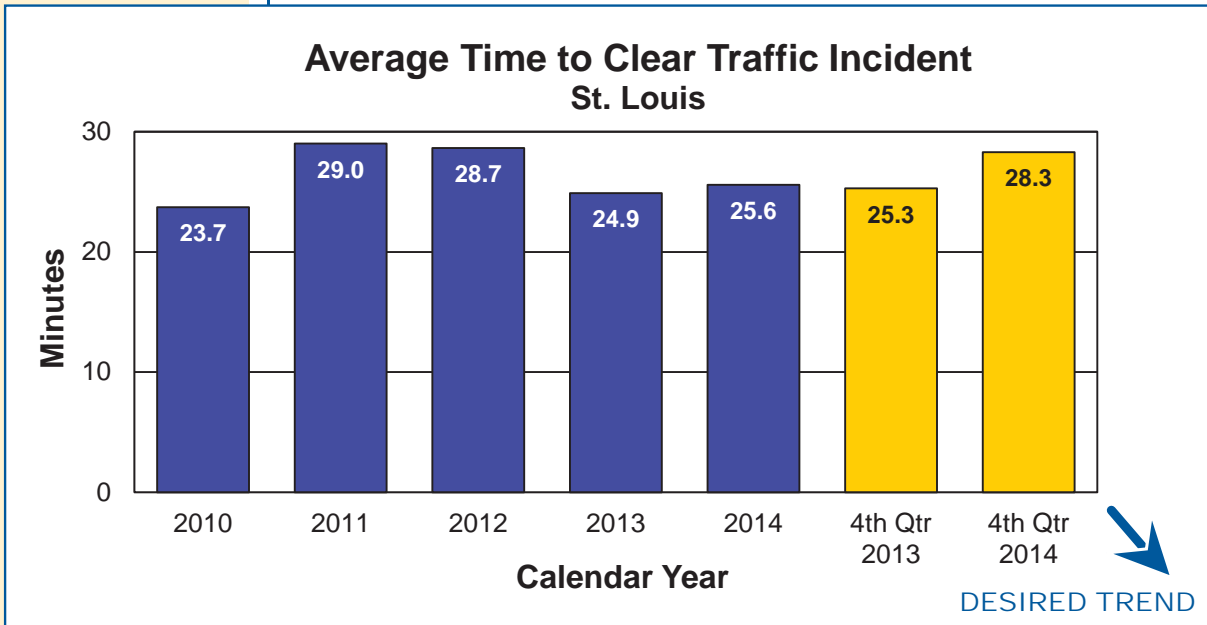
St. Louis recorded 756 incidents in October, 647 in November, and 643 in December. The average time to clear traffic incidents was 28.3 minutes, an increase of 12 percent compared to the fourth quarter of 2013.

Kansas City recorded 828 incidents in October, 830 in November, and 811 in December. The average time to clear traffic incidents was 32.5 minutes, a decrease of 19 percent from the fourth quarter of 2013.

St. Louis and Kansas City have demonstrated quick clearance of incidents with yearly averages of 26 minutes and 35 minutes respectively.



## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM



RESULT DRIVER:  
Paula Gough,  
District Engineer

MEASUREMENT  
DRIVER:  
Rick Bennett,  
Traffic Liaison Engineer

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
closures on Interstate 70  
and Interstate 44 due to  
various traffic impacts. This  
measure tracks the clo-  
sures on Interstate 70 and  
Interstate 44 due to various  
traffic impacts.

MEASUREMENT  
AND DATA  
COLLECTION:  
The interstate route clo-  
sures that have an actual  
or expected duration of  
30 minutes or more are  
entered into MoDOT's  
Transportation Management  
System for display on the  
Traveler Information Map on  
MoDOT's website.

## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

### *Traffic impact closures on major interstate routes-5d*

Interstates are the arteries that connect our nation and keep people and commerce flowing. When they shut down in Missouri, the country is cut in half. Keeping interstates free-flowing is a top priority for MoDOT, but sometimes nature and vehicle crashes affect the department's ability to keep the interstates moving.

MoDOT is in the process of improving this measure by using real-time traffic data to provide a better picture of the impacts of incidents, as well as improved tracking of efforts to reduce the delays caused by these incidents.

MoDOT continues to work with emergency responder partners to minimize the delay caused by closures on the interstate system.

#### **Traffic Impact Closures on Major Interstate Routes**

**UNDER DEVELOPMENT**

RESULT DRIVER:  
Paula Gough,  
District Engineer

MEASUREMENT  
DRIVER:  
Jerica Holtsclaw,  
Design Liaison Engineer

PURPOSE OF  
THE MEASURE:  
Work zones are designed  
to allow the public to travel  
through safely and with  
minimal disruptions. This  
measure indicates how  
well significant work zones  
perform.

MEASUREMENT  
AND DATA  
COLLECTION:  
Work zone impacts are  
collected by conducting  
visual observations or using  
automated data collection.  
Recent updates to traffic  
data collection methods  
allow for more work zones  
to be evaluated. An impact  
is defined as the additional  
time a work zone adds to  
normal travel. They are cat-  
egorized into three levels: a  
minor impact lasts less than  
10 minutes; a moderate im-  
pact lasts 10 to 14 minutes;  
and a major impact lasts 15  
minutes or more.

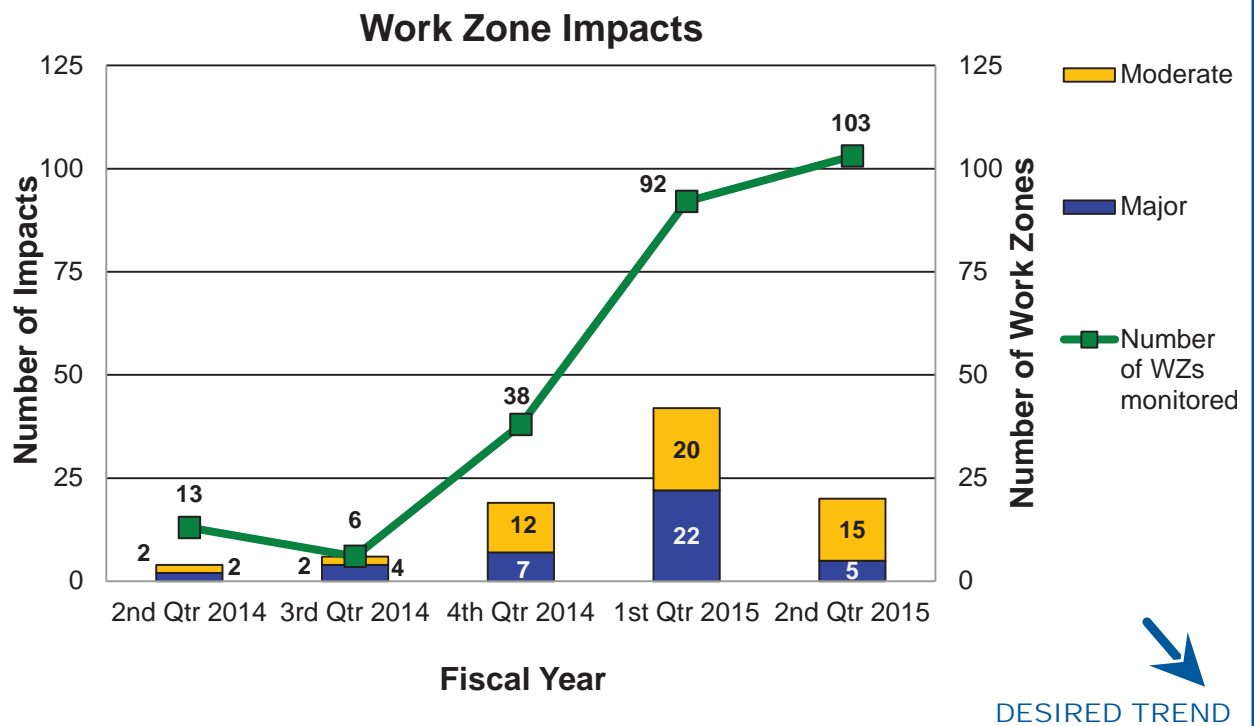
## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

### *Work zone impacts to the traveling public-5e*

Motorists want to get through work zones with as little inconvenience as possible. MoDOT makes efforts to minimize the travel impacts by shifting work to nighttime hours or during times when there are fewer impacts to the traveling public. To get a wider range of data and better understand the impact work zones have on motorists, the department has increased the number of work zones it monitors each quarter. The department monitored 103 significant work zones this quarter, with 5 major impacts and 15 moderate impacts. Two major impacts were in the St. Louis District and one in the Northeast, Southeast and Kansas City Districts. Four of the 20 impacts overall were in the Southeast District due to emergency concrete bridge repairs on I-55 and seven impacts on I-70 design build job in Kansas City. Based on work zone surveys received this quarter, 57 percent are satisfied with timeliness when traveling in a work zone.



## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM



RESULT DRIVER:  
Paula Gough,  
District Engineer

## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

MAP-21

### MEASUREMENT DRIVER:

Mike Henderson,  
Transportation Planning  
Specialist

### PURPOSE OF THE MEASURE:

This measure tracks concentrations of pollutants in on-road mobile source emissions. In other words, the department is tracking pollution caused by vehicles on the roads.

### MEASUREMENT AND DATA COLLECTION:

MoDOT is still determining what pollutants to track and what concentration levels will align with the U.S. Environmental Protection Agency's air quality standards. At this time, the department collects data on oxides of nitrogen, volatile organic compounds, fine particulate matter and carbon monoxide. Because this measure is part of the latest federal surface transportation act's performance requirements, guidance for measurement and data collection will be established by 2015.

### *Effectiveness of improving air quality-5f*

MoDOT is committed to improving air quality through modifying its daily operations, incorporating employee actions and education, providing information to the public, leading air quality improvements, managing congestion to reduce emissions, providing alternative choices for commuters and promoting the use of environmentally friendly fuels and vehicles.

#### Effectiveness of Improving Air Quality

**UNDER DEVELOPMENT**

RESULT DRIVER:  
Paula Gough,  
District Engineer

MEASUREMENT  
DRIVER:  
Tim Chojnacki,  
Maintenance Liaison  
Engineer

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
amount of time needed to  
perform MoDOT's snow and  
ice removal efforts.

MEASUREMENT  
AND DATA  
COLLECTION:  
For major highways and  
regionally significant  
routes, the objective is to  
restore them to a mostly  
clear condition as soon as  
possible after the storm  
has ended. MoDOT calls  
these "continuous opera-  
tions" routes. State routes  
with lower traffic volumes  
should be opened to two-  
way traffic and treated with  
salt or abrasives at critical  
areas such as intersections,  
hills and curves. These are  
called "non-continuous op-  
erations" routes. After each  
winter event, maintenance  
personnel submit reports  
indicating how much time it  
took to meet the objectives  
for both route classifica-  
tions.

## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

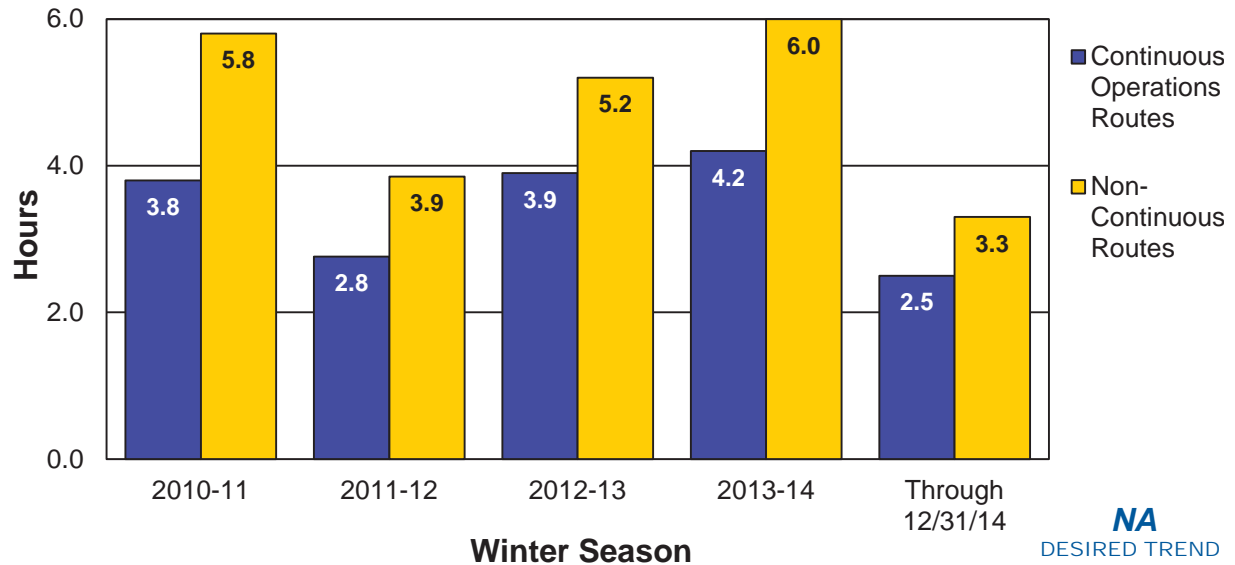
### *Time to meet winter storm event performance objectives-5g*

Knowing the time it takes to clear roads after a winter storm can help the department better analyze the costs associated with that work. MoDOT's response rate to winter events provides good customer service for the traveling public while keeping costs as low as possible. The early winter has been light so far, with a few events and light accumulations of snow and ice. It took an average of 2.5 hours to meet MoDOT's objective for continuous operations routes, and an average of 3.3 hours for non-continuous routes. These numbers compare favorably with the type of storms, but MoDOT still spent 157,000 hours fighting these snow and ice events at a cost of \$13.2 million through the end of December. Winter operations, on average, cost about \$46 million dollars per year. The money and time spent on clearing the roads of ice and snow means funds are not available to maintain the roadways in the spring, such as surface improvements, sign repair, brush cutting and drainage work.

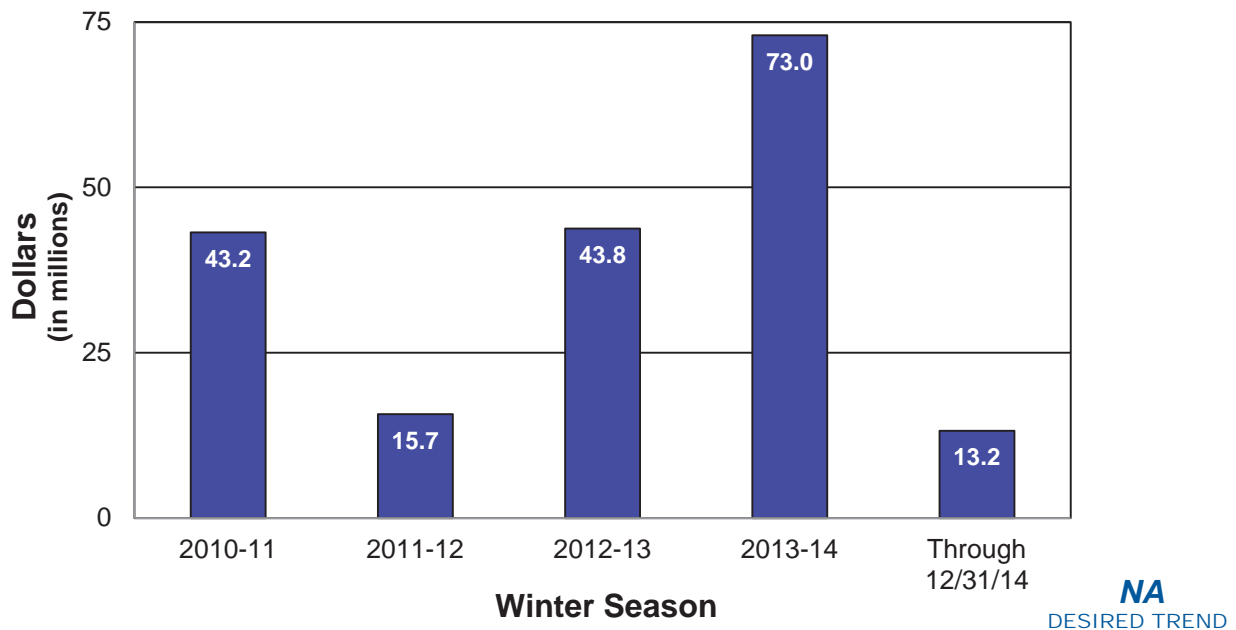


## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

### Time to Meet Winter Storm Event Performance Objectives



### Average Cost of Winter Operations



**RESULT DRIVER:**  
Paula Gough,  
District Engineer

**MEASUREMENT DRIVER:**  
Ron Effland, Non-motorized  
Transportation Engineer

**PURPOSE OF THE MEASURE:**  
This measure tracks MoDOT's investment in pedestrian facilities and progress toward removing barriers. Accessibility needs occur both within the right of way, such as sidewalks and traffic signals, and within department buildings, parking lots and restrooms. Removal of the barriers listed in MoDOT's 2010 Transition Plan is required as part of the department's compliance with the Americans with Disabilities Act.

**MEASUREMENT AND DATA COLLECTION:**  
Tracking of MoDOT's investment in pedestrian facilities is done by collecting awarded contract amounts for the 20 most common construction elements used on pedestrian projects each year. Transition Plan progress is based upon completed work that has corrected defective items reported in the August 2010 Transition Plan inventory. The dollar amounts are based on unadjusted estimates from 2008 and will not reflect actual expenditures. This avoids impacts from inflation or changing field conditions.

## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

### *Bike/pedestrian and ADA transition plan improvements-5h*

MoDOT has been responsive to public requests for improved accessibility and has been proactive in many areas to make systematic improvements when opportunities arise and limited funding allows. MoDOT has improved more than \$14.8 million worth of ADA facilities in the right of way since 2008. There is still more work to do as there is more than \$136.4 million worth of work left to complete on the 2010 ADA Transition Plan inventory.

Unfortunately, a dwindling revenue stream for construction projects at both state and federal levels makes it difficult to even maintain existing facilities. Additional funding sources will need to be developed before significant progress can be made in developing the additional facilities that Missourians desire.

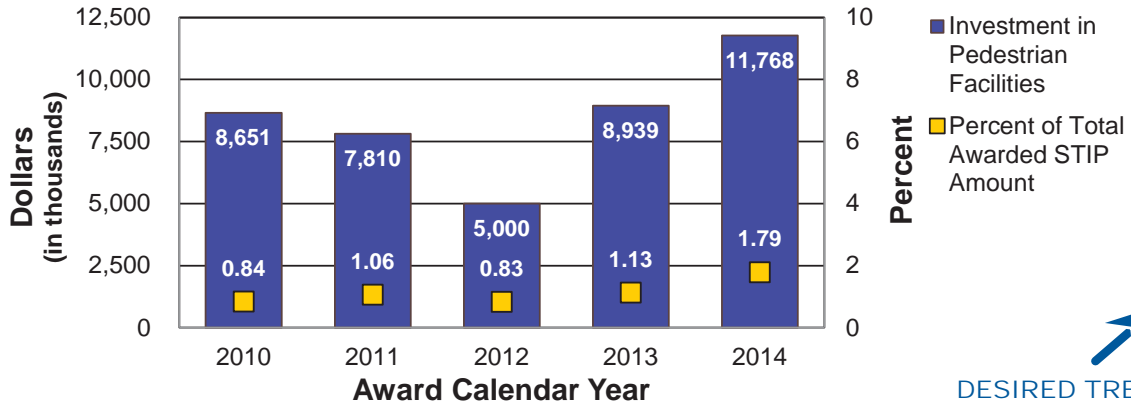
MoDOT's investment in pedestrian facilities for calendar year 2014 totals \$11.76 million. This exceeds the \$5 million invested in 2012 and the 2013 investment of \$8.9 million. MoDOT is committed to complete ADA improvements, including cross slope corrections, as work is being done on the adjacent roadway section in the 2010 Transition Plan. Reporting of Transition Plan improvements shows \$4.68 million of work was completed in 2014, a huge increase over the \$1.49 million of completed improvements in 2013.

ADA compliance in MoDOT facilities is nearing completion with six of the seven districts showing ADA improvement projects are 100 percent completed. The Southeast District has just \$12,000 of ADA work to complete.

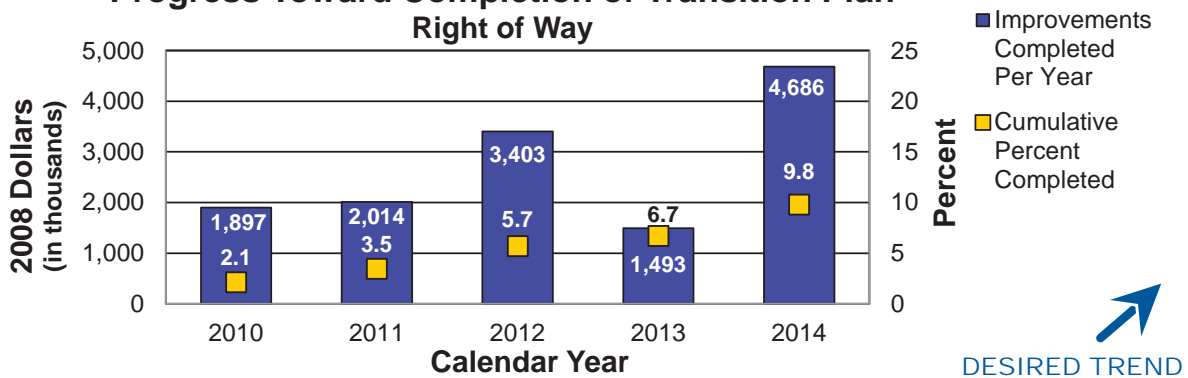


# OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

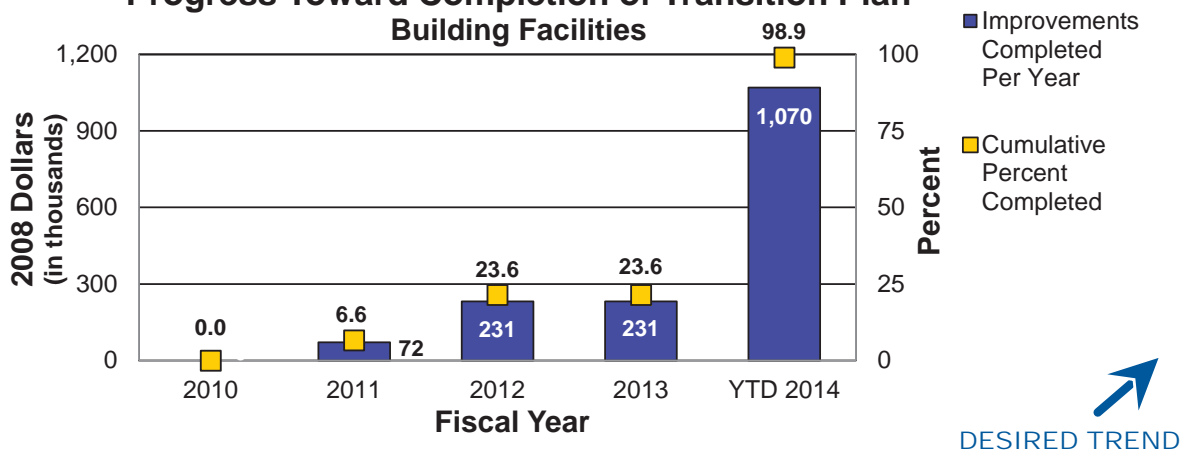
## Investment in Pedestrian Facilities Based on Contract Awards



## Progress Toward Completion of Transition Plan Right of Way



## Progress Toward Completion of Transition Plan Building Facilities



## RESULT DRIVER:

Paula Gough,  
District Engineer

## MEASUREMENT DRIVER:

Amy Ludwig,  
Administrator of Aviation

## PURPOSE OF THE MEASURE:

This measure tracks passenger use of modes other than highways in Missouri.

## MEASUREMENT AND DATA COLLECTION:

Airline passenger counts are obtained from the Federal Aviation Administration and from individual airports. Washington is the benchmark due to its comparable population. Ferry passenger data is compiled from the New Bourbon and Mississippi County ferryboats, services owned and operated by Missouri public port authorities. Amtrak supplies Missouri River Runner passenger counts. Urban and rural transit services provide transit passenger data, with Wisconsin as the benchmark. Aviation and transit data is updated annually – in January and October, respectively – while ferryboat and rail data is updated quarterly.

# OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

## *Use and connectivity of modes of transportation-5i*

Planes, trains, ferries and transit are vital means of transport for Missourians. Alternative modes of transportation connect Missourians to work, health care and other necessary activities. They also are used to grow Missouri's economy and create jobs. Missouri's current transportation funding for these modes is inadequate and unreliable. As revenues continue to decline, the state is increasingly unable to meet even a portion of the existing needs for these important transportation system components.

Bad economic times usually drive customers away from air travel and can cause cutbacks in transit services. The number of airline passengers has remained fairly steady from 2010 to 2013, but appears to be increasing based on the preliminary estimates of passenger enplanements for calendar year 2014. Due to increasing state Aviation Trust Fund revenues, MoDOT solicited grant applications in November 2014 from commercial service airports for the air service program for the first time since 2010. These grants can be used for air service promotion and marketing and to study potential new routes.

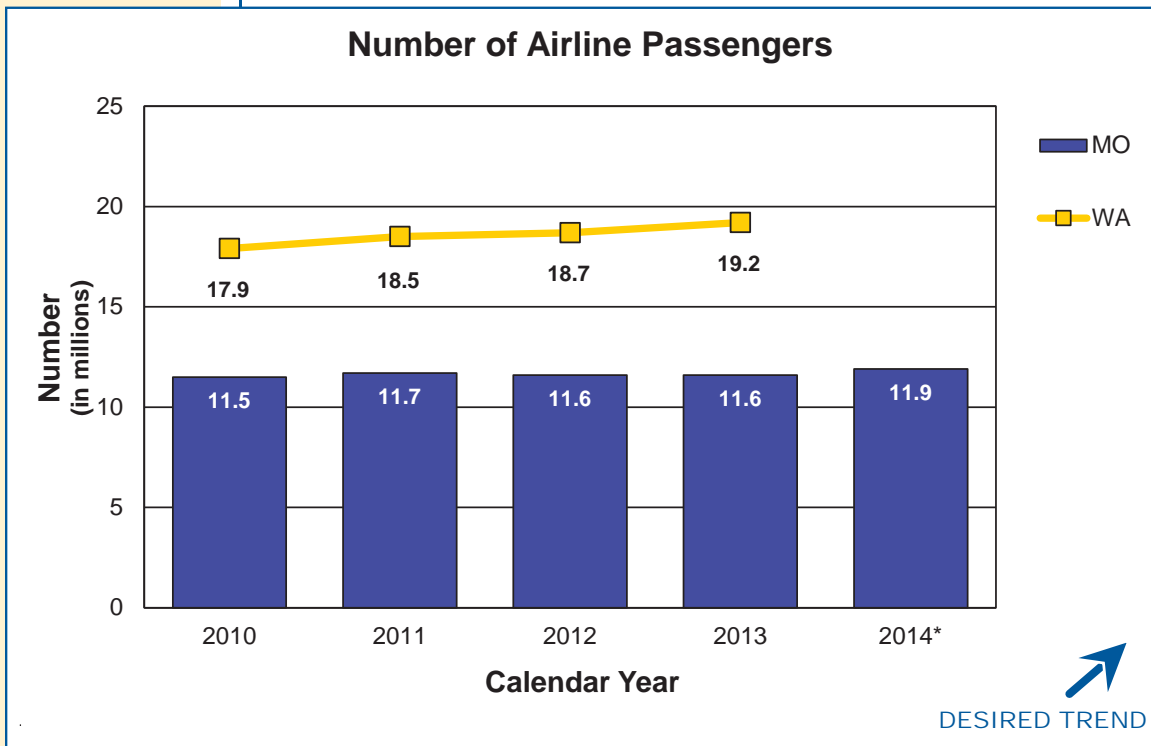
The number of ferry boat passengers decreased from more than 11,000 passengers in the second quarter of fiscal year 2014 to nearly 9,000 in the second quarter of FY 2015. Ferry boat services are used by both passenger vehicles and commercial vehicles. The New Bourbon ferry carried more passengers compared to the same quarter of FY 2014, but the Mississippi County ferry carried fewer passengers because the service was closed most of the quarter.

Missouri River Runner trains carried 48,818 passengers in the second quarter of FY 2015. Strong holiday travel helped create a 2 percent increase over the same period last year. On-time performance continued to be a challenge, primarily due to increasing freight train traffic on the corridor and at the terminals. In the second quarter, the Missouri Service was on time 79 percent of the time, compared to 92 percent a year earlier.

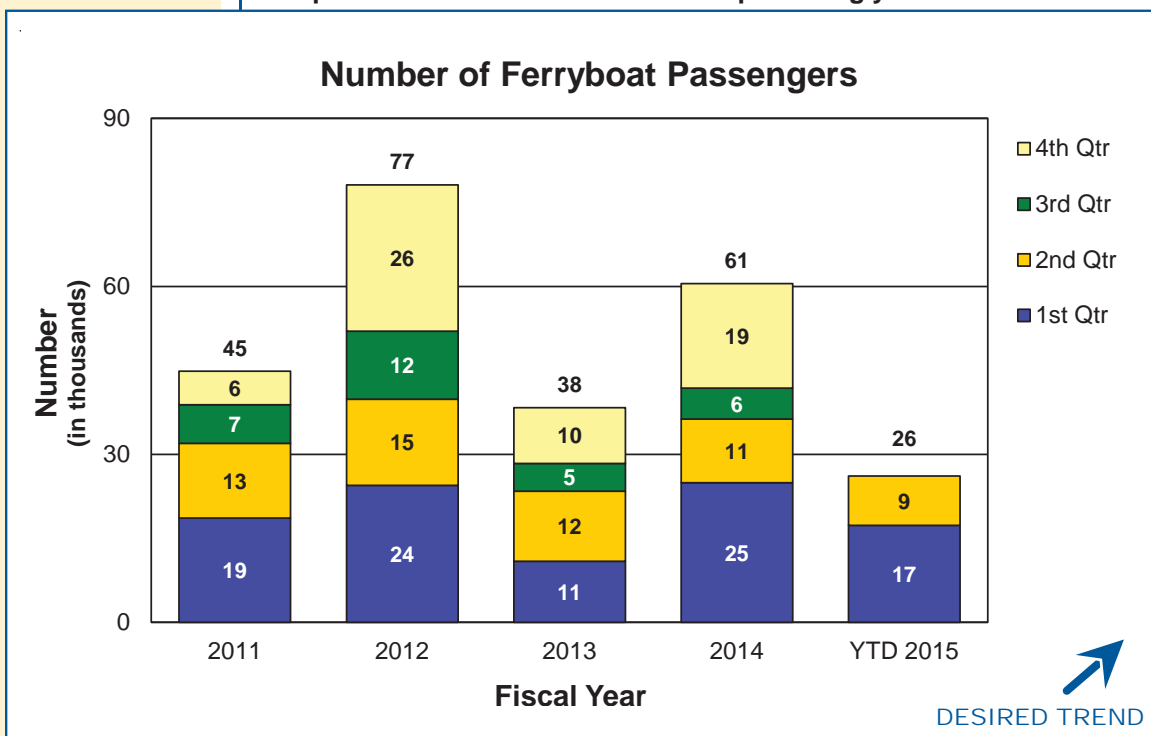
In FY 2014, transit ridership remained steady. Transit ridership increased from 62.5 million trips in FY 2013 to 63.1 million trips in FY 2014. Metro transit ridership saw an increase of 2 percent ridership while non-metro transit ridership saw a decrease of almost 30 percent ridership. Both of these shifts can be largely attributed to Cape Girardeau's ridership now being counted as metro transit ridership instead of rural. Even so, almost all the reporting rural transit agencies experienced declines in ridership from FY 2013 to FY 2014.

MoDOT continues to support these travel modes by administering federal and state inspection, construction and operational programs, assisting with advocacy efforts and educating the public about the benefits these services provide.

## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

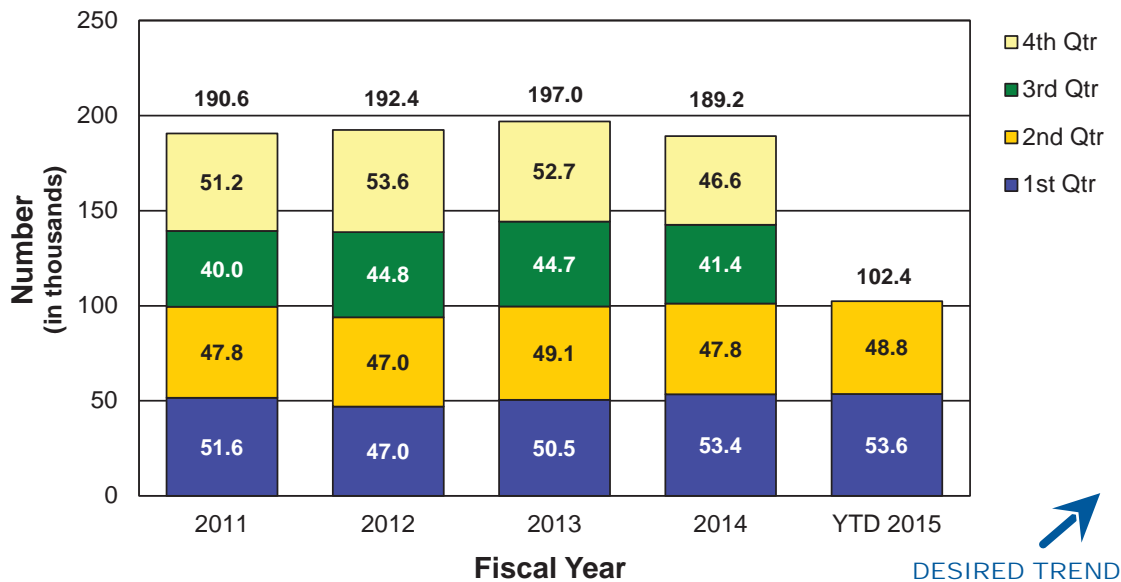


\*2014 data is based on preliminary individual airport statistics.  
FAA publishes data in October for the preceding year.

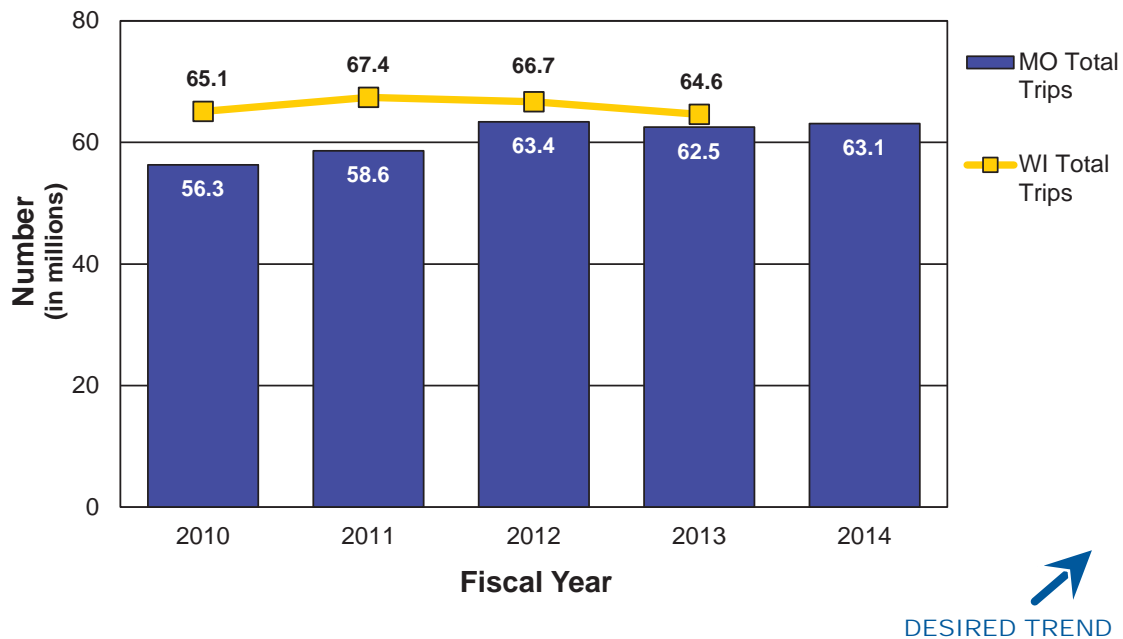


## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

**Number of Rail Passengers  
on Missouri State-Sponsored Trains**



**Number of Transit Passenger Boardings  
(annual one-way unlinked transit passenger trips)**





## USE RESOURCES WISELY

*Brenda Morris, Financial Services Director*

 **Tracker**

MEASURES OF DEPARTMENTAL PERFORMANCE



MoDOT has access to many resources including people, funding, supplies and equipment. Taxpayers trust MoDOT is a good steward of these limited resources while limiting the impact on our environment. We are accountable for everything we do.

**RESULT DRIVER:**  
Brenda Morris,  
Financial Services Director

**MEASUREMENT DRIVER:**  
Steve Meystrik,  
Special Projects  
Coordinator

**PURPOSE OF THE MEASURE:**  
This measure tracks the change in the number of full-time equivalencies (a calculation of hours) expended within the department and compares it to the number of FTEs in the legislative budget.

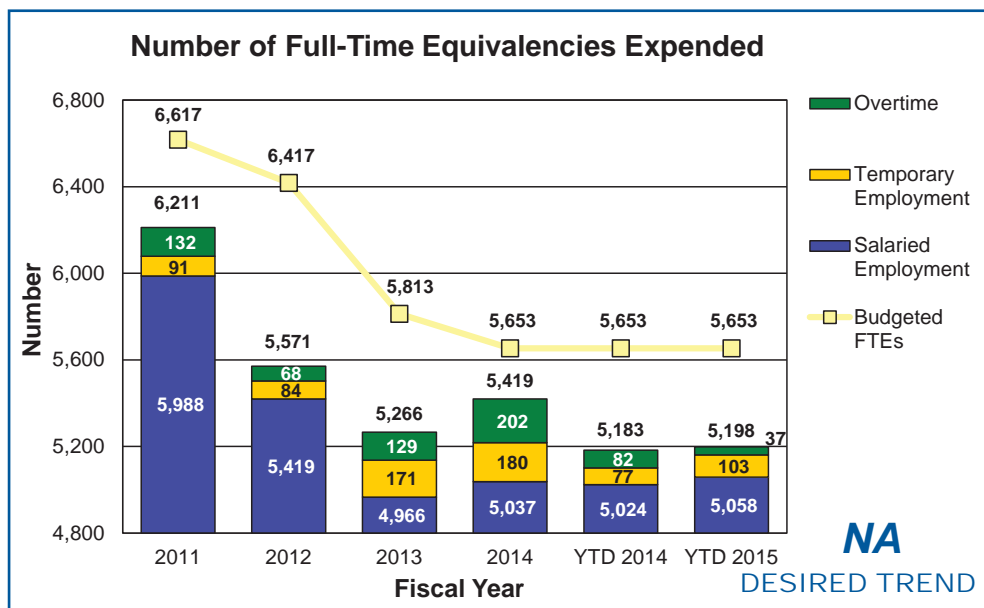
**MEASUREMENT AND DATA COLLECTION:**  
This measure converts the regular hours worked or on paid leave of temporary and salaried employees, as well as overtime worked (minus any hours that are flexed during the workweek), to FTEs. In order to calculate FTEs, the total number of hours worked or on paid leave is divided by 2,080. For comparison purposes, data for salaried employment is annualized, whereas temporary employment and overtime data represent actual year-to-date calculations. Salaried headcount is different than FTEs and is not included in the chart.

## USE RESOURCES WISELY

### *Number of full-time equivalencies expended-6a*

Having the right number of employees to provide outstanding customer service and respond to the state's transportation needs, especially during emergency situations, is an important part of MoDOT's efforts to use resources wisely. MoDOT remains below its targeted employment level of 5,106 salaried employees and continues the challenging task of reaching and maintaining its targeted employment level.

During the first half of fiscal year 2015, the FTE level for salaried employment has increased compared to the same time last year. The FTE level for temporary employment has also increased due to the use of seasonal employees to fill staffing gaps at maintenance facilities. These temporary employees are needed to assist with emergency response functions such as snow and ice removal. FTEs resulting from overtime worked have decreased significantly due to fewer winter weather events occurring in December 2014 compared to December 2013. Through December 31, 2014, the department worked approximately 88,000 fewer hours of overtime, equivalent to approximately 43 fewer FTEs, due to snow and ice prevention and removal compared to last year.



RESULT DRIVER:  
Brenda Morris,  
Financial Services Director

## USE RESOURCES WISELY

MEASUREMENT  
DRIVER:  
Rudy Nickens,  
Equal Opportunity and  
Diversity Director

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
level of employee satisfac-  
tion throughout the depart-  
ment at specific points in  
time.

MEASUREMENT  
AND DATA  
COLLECTION:  
Employee satisfaction is  
measured with an annual  
employee survey. Em-  
ployees rate items related  
to their satisfaction with  
MoDOT using a five-point  
scale, with one indicating  
low satisfaction and five  
indicating high satisfaction.  
Society for Human Re-  
sources Management best  
practice data was gathered  
from an SHRM report of  
an annual job satisfaction  
survey of 55 Fortune 500  
companies.

### *Level of job satisfaction-6b*

MoDOT wants employees to be satisfied with their work and workplace and feel like they are a good fit for their jobs. Employee satisfaction can be a driver of overall organizational performance. The more satisfied and engaged employees are with the workplace, the more discretionary effort they are willing to put forth on the job.

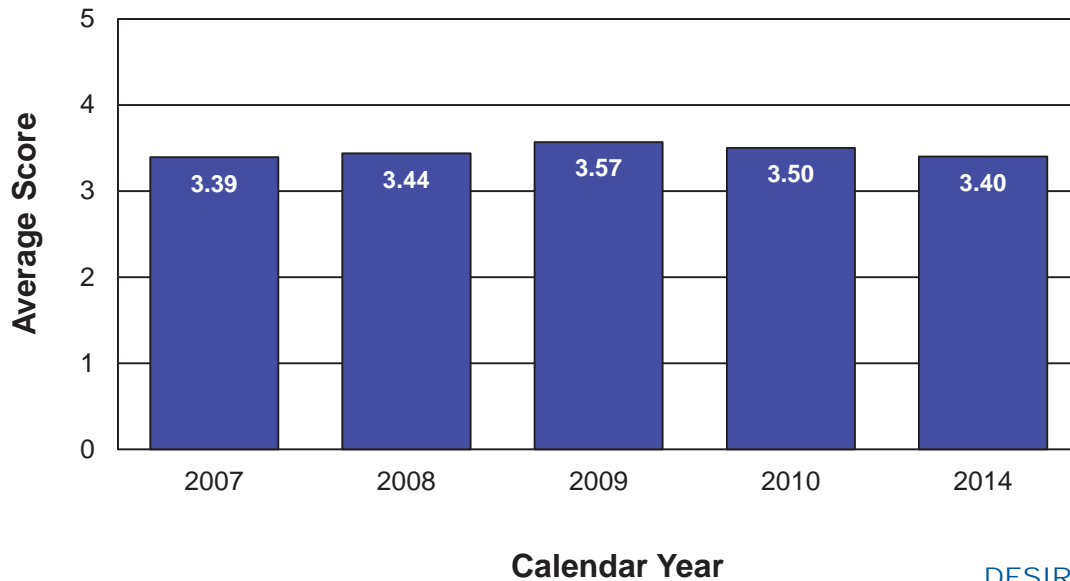
Between 2005 and 2010, the average employee satisfaction ratings and percent of satisfied employees both showed upward trends with peaks in 2009. Following a four-year break, the employee survey was conducted this past spring. Overall job satisfaction has dipped slightly from 3.5 in 2010 to 3.4 in 2014. The percentage of satisfied employees also experienced a slight decline from 65 percent in 2010 to 64 percent in 2014. However, the percentage of very satisfied employees increased from 7 percent in 2010 to 11 percent in 2014.

Areas of low satisfaction center on not seeking out employee suggestions, making employees feel valued and having opportunities to advance at MoDOT. The lack of salary increases was scored low on most surveys and dominated the written comments. Areas of high satisfaction revolve around being treated with respect by coworkers, having supervisors support needs to balance work and family, knowing how daily work relates to MoDOT goals and priorities and having cooperation within work units.

MoDOT senior managers have begun the process to form a number of teams with employees from across the department to develop specific actions to improve the organization.

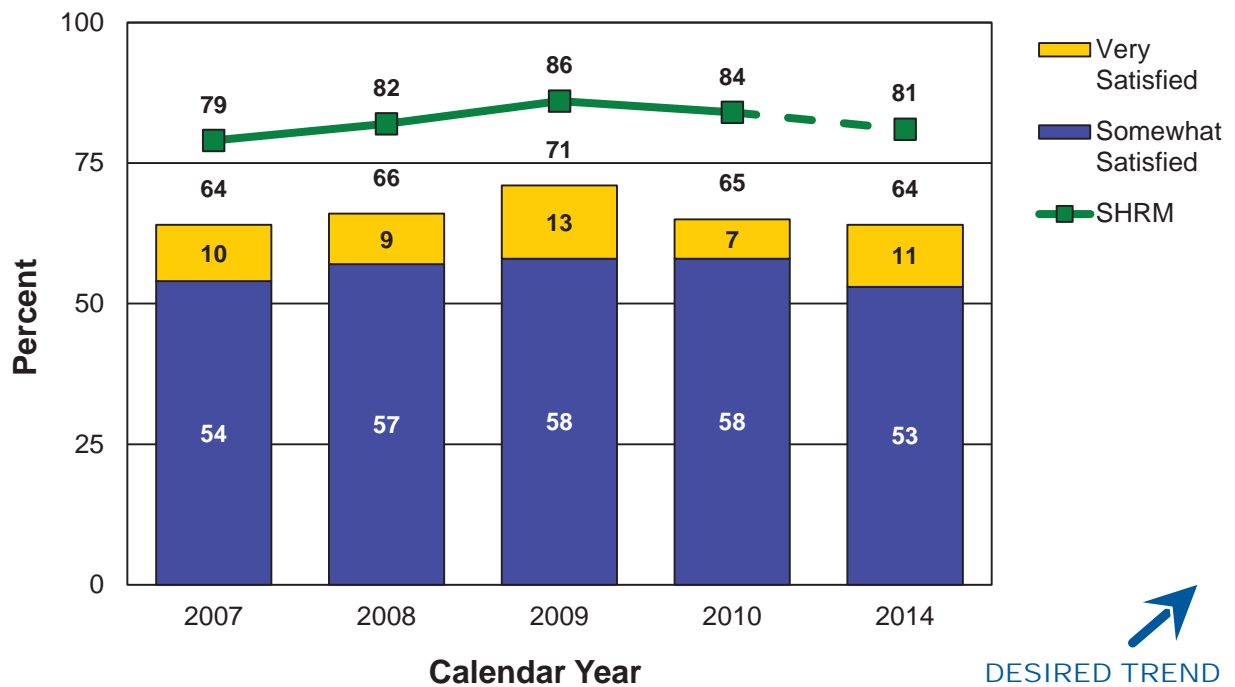


### Level of Job Satisfaction (Average Rating)



DESIRED TREND

### Percent of Satisfied Employees



DESIRED TREND

RESULT DRIVER:  
Brenda Morris,  
Financial Services Director

MEASUREMENT  
DRIVER:  
Aaron Kincaid,  
Employment Manager

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
percentage of employees  
who leave MoDOT an-  
nually and compares the  
department's voluntary and  
involuntary turnover rates to  
benchmarked data.

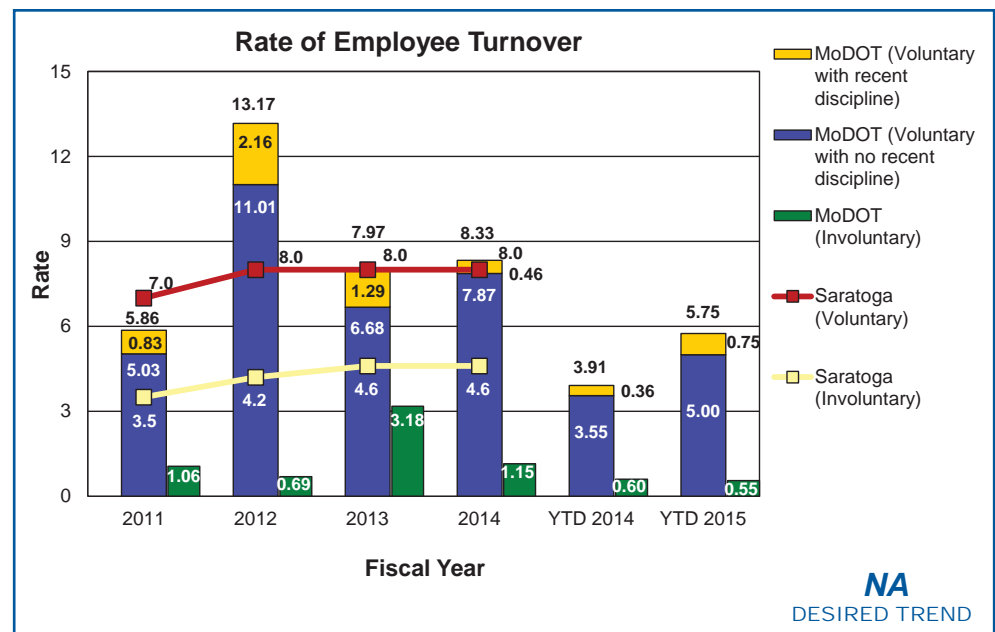
MEASUREMENT  
AND DATA  
COLLECTION:  
Voluntary turnover includes  
resignations and retire-  
ments. Involuntary turnover  
reflects dismissals. The  
data is collected statewide  
to assess overall employee  
turnover. Comparison data  
is collected from vari-  
ous sources annually. For  
benchmarked data, Sara-  
toga Institute surveys more  
than 300 organizations  
representing a wide variety  
of industries.

## USE RESOURCES WISELY

### Rate of employee turnover-6c

When employees leave MoDOT, the department loses a large investment in recruiting, hiring, and training its workforce. Historically, MoDOT has a relatively low employee turnover rate, which relates to the high percentage of employees who stay until retirement. While some turnover is desired, such as releasing poor performers, MoDOT needs to retain a great workforce that has the knowledge and specialized skills to deliver the department's commitments and provide outstanding customer service.

During the first two quarters of fiscal year 2015, voluntary turnover rates (133 retirements and 158 resignations) are showing an upward trend. The voluntary turnover rate has increased significantly from 3.91 percent in FY 2014 YTD to 5.75 percent in FY 2015 YTD. First-year turnover remains the highest turnover rate and is the focus for the department's employee retention efforts through the onboarding program. Involuntary turnover rates have decreased from the first two quarters of FY 2014, reducing back to more similar historical statewide rates with 28 involuntary separations (dismissals) in the first two quarters of FY 2015.



RESULT DRIVER:  
Brenda Morris,  
Financial Services Director

## USE RESOURCES WISELY

MEASUREMENT  
DRIVER:  
Todd Grosvenor,  
Special Projects  
Coordinator

PURPOSE OF  
THE MEASURE:  
This measure shows the  
precision of state and fed-  
eral revenue projections.

MEASUREMENT  
AND DATA  
COLLECTION:  
State revenue for roads and  
bridges include motor fuel  
taxes, motor vehicle and  
driver licensing fees, and  
motor vehicle sales and  
use taxes paid by highway  
users, interest earnings and  
miscellaneous revenues.  
State revenue for other  
modes includes motor vehi-  
cle sales taxes, aviation fuel  
taxes, jet fuel sales taxes,  
motor vehicle licensing  
fees, railroad assessments,  
appropriations from General  
Revenue and interest earn-  
ings. The measure provides  
the cumulative, year-to-  
date percent variance of  
actual state revenue versus  
projected state revenue  
by state fiscal year. Fed-  
eral revenue for roads and  
bridges is the amount avail-  
able to commit in a federal  
fiscal year of federal funds.  
Federal funds are distrib-  
uted to states via federal  
law. Federal revenue for  
other modes is the amount  
reimbursed to MoDOT for  
expenses incurred in a state  
fiscal year.

### *State and federal revenue projections-6d*

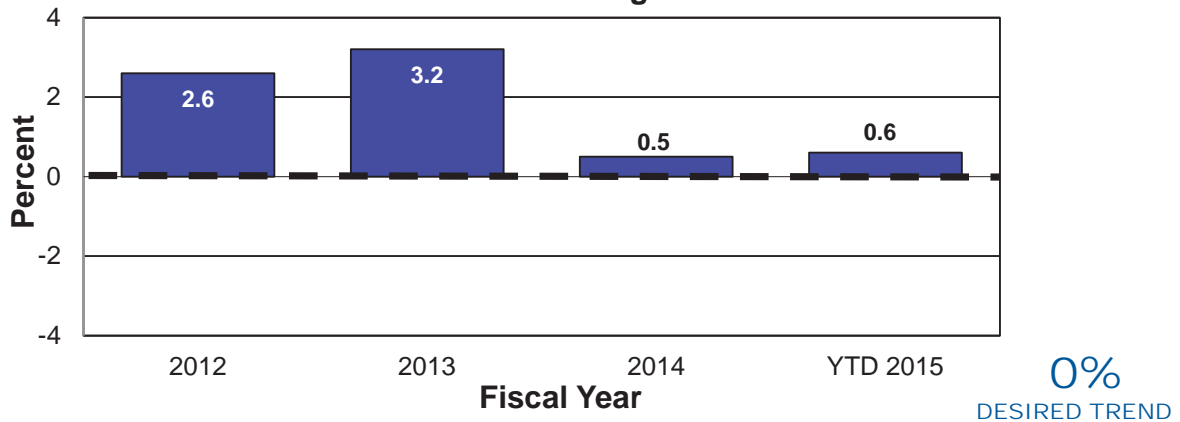
State and federal revenue projections help MoDOT staff do a better job of budgeting limited funds for its operations and capital program. The desired trend is for actual revenue to match projections with no variance. MoDOT staff adjusts future operating and capital budgets to account for these vari-  
ances, if needed.

The actual state revenue for road and bridge is slightly higher than projected and other modes is greater than projected for the second quarter of fis-  
cal year 2015. State revenue for road and bridge has been stagnant from  
year-to-year. Based on the last three years, motor vehicle and driver licens-  
ing fees and motor vehicle sales and use taxes have grown, but motor fuel  
taxes have declined. The positive variance of 10.5 percent for other modes  
is attributable to the jet fuel sales tax and railroad assessments.

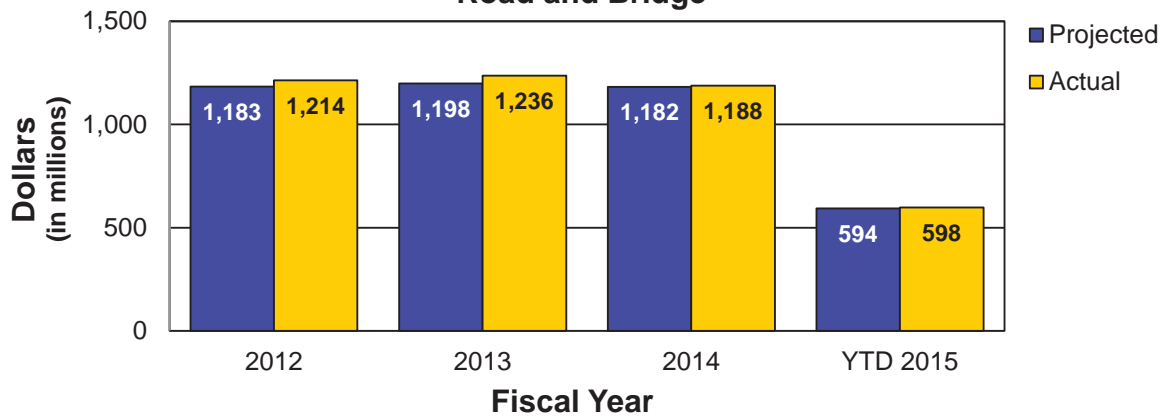
The largest source of transportation revenue is from the federal government.  
Funding is received through various federal transportation agencies includ-  
ing Federal Highway, Transit, Aviation and Railroad administrations. Federal  
funding is uncertain. In June 2012, Congress passed a new two-year federal  
transportation reauthorization act entitled Moving Ahead for Progress in the  
21st Century Act. MAP-21 reduced the amount of road and bridge funding  
for all state DOTs. In July 2014, Congress passed legislation to extend MAP-  
21 until May 31, 2015. Federal revenue for other modes is reliant on the  
timing of project expenditures.

The primary source of federal and state revenue is fuel tax. With people driv-  
ing more fuel efficient vehicles and fewer miles, motor fuel tax is a declining  
revenue source. The motor fuel tax rate has not changed in almost 20 years,  
while the costs for materials and labor have doubled, and even tripled for  
some materials, in the same time frame.

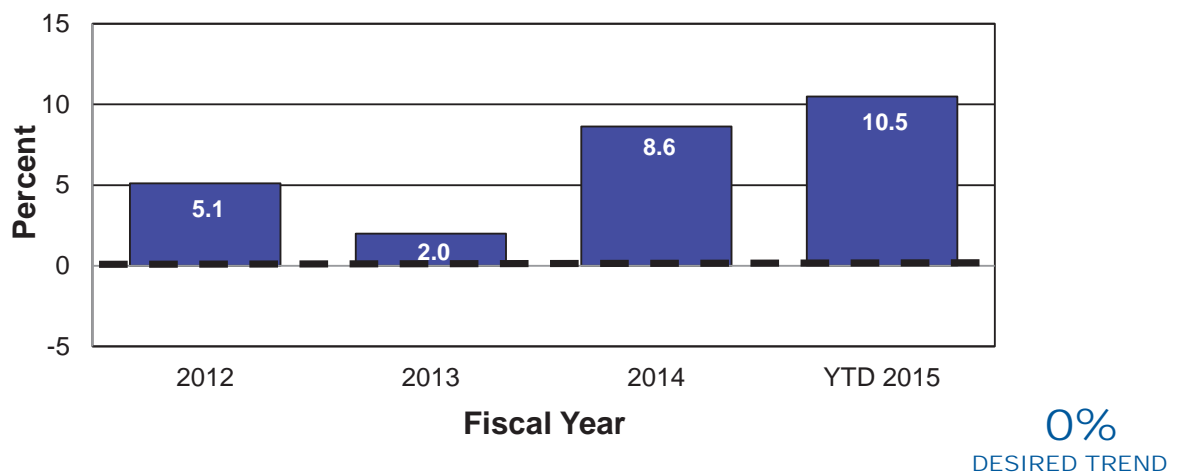
**Percent Variance of State Revenue Projections  
Road and Bridge**



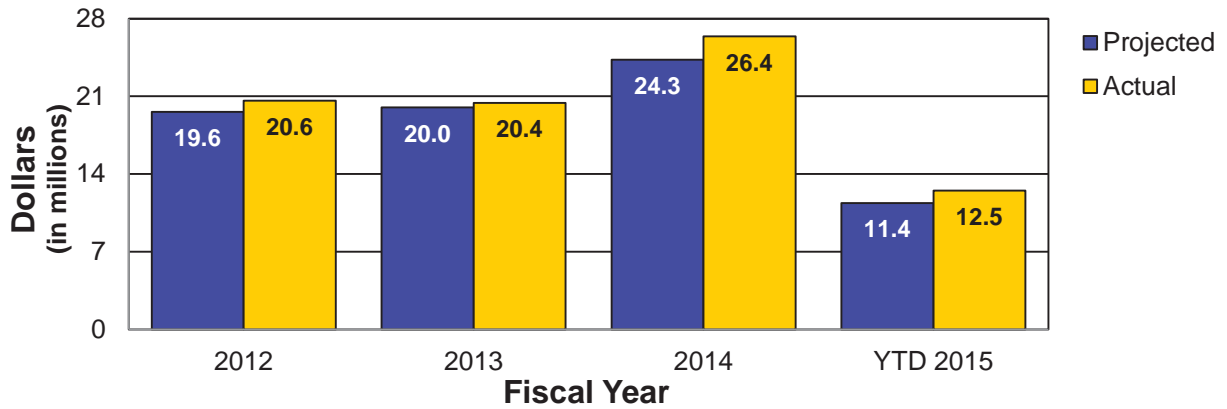
**Projected vs. Actual State Revenue Comparison  
Road and Bridge**



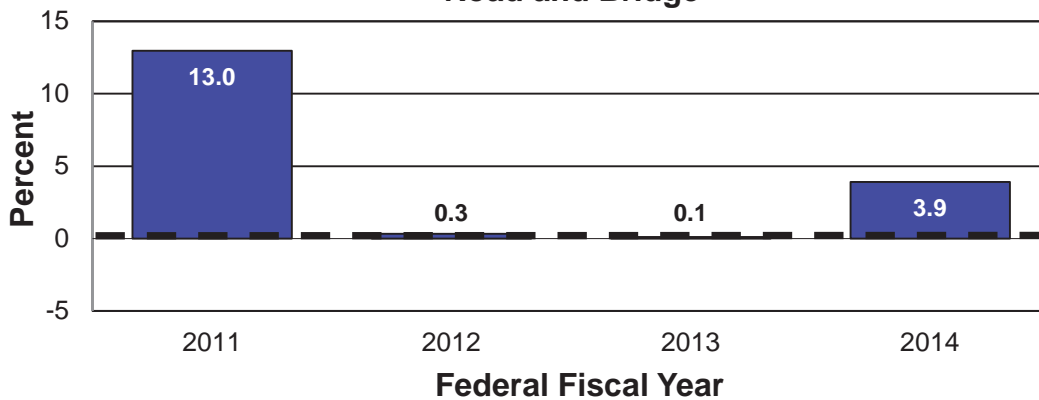
**Percent Variance of State Revenue Projections  
Other Modes**



### Projected vs. Actual State Revenue Comparison Other Modes

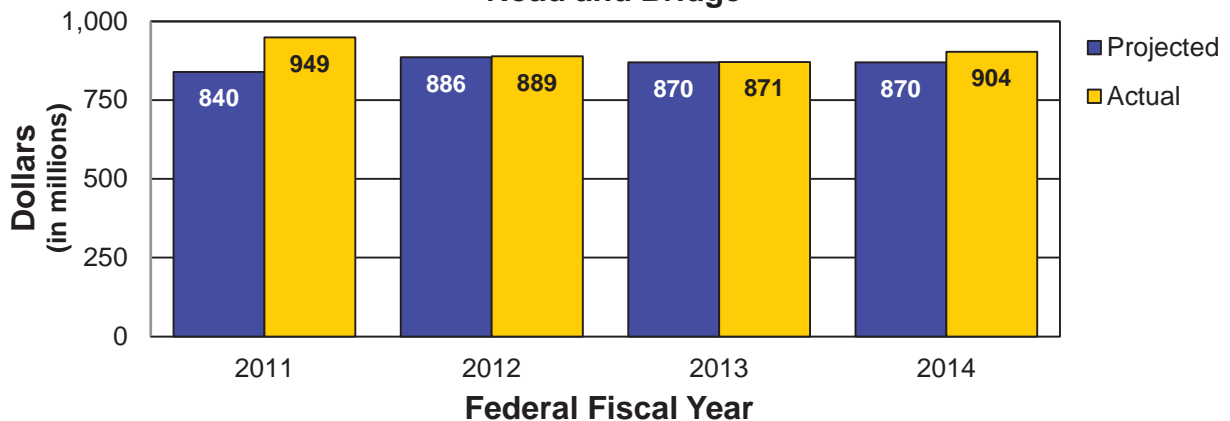


### Percent Variance of Federal Revenue Projections Road and Bridge

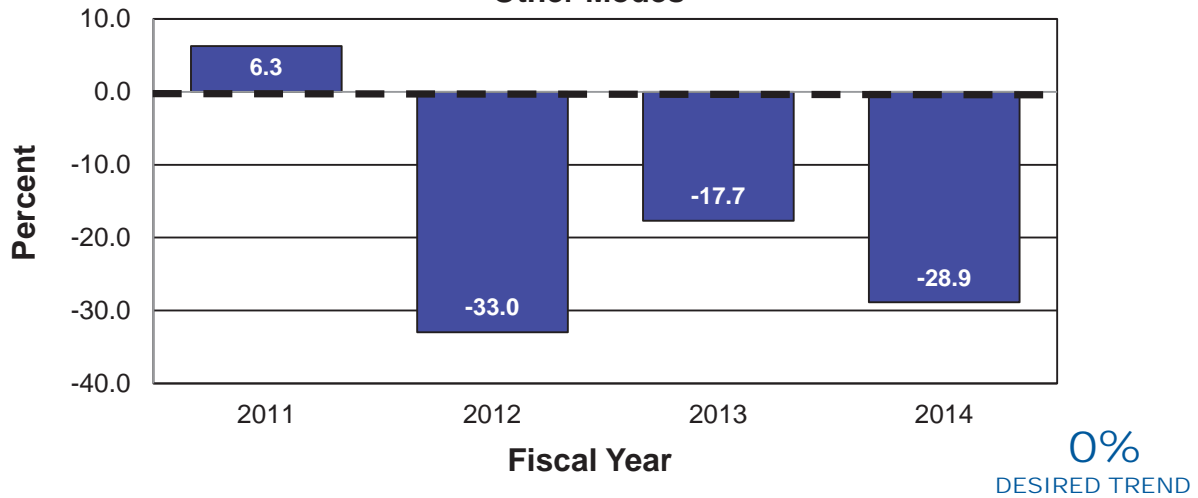


0%  
DESIRED TREND

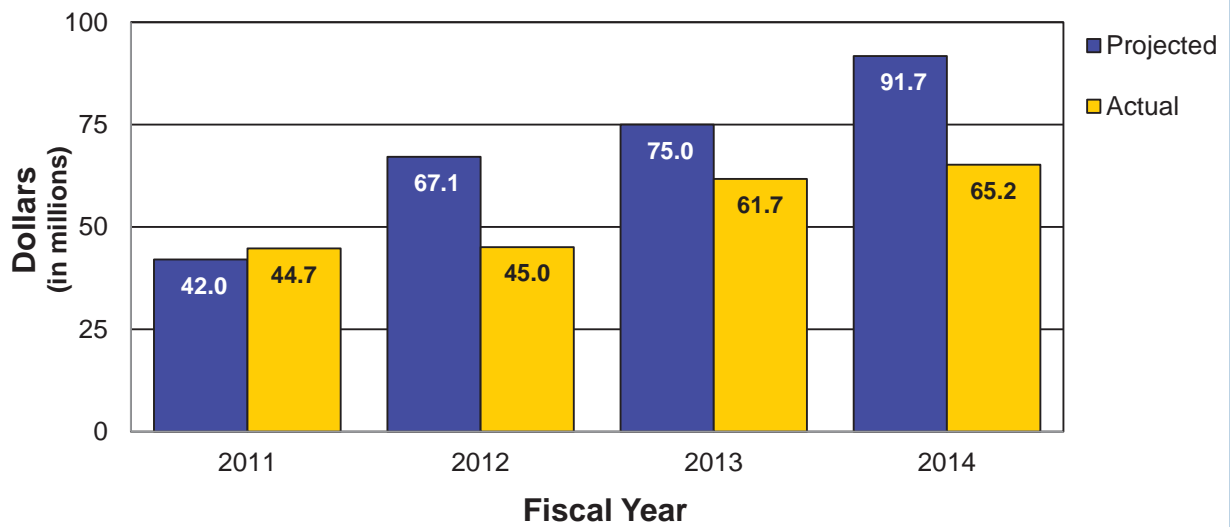
### Projected vs. Actual Federal Revenue Comparison Road and Bridge



**Percent Variance of Federal Revenue Projections  
Other Modes**



**Projected vs. Actual Federal Revenue Comparison  
Other Modes**



RESULT DRIVER:  
Brenda Morris,  
Financial Services Director

## USE RESOURCES WISELY

MEASUREMENT  
DRIVER:  
Frank Miller,  
District Planning Manager

PURPOSE OF  
THE MEASURE:  
This measurement moni-  
tors the effectiveness of  
MoDOT's cost-sharing and  
partnering programs.

MEASUREMENT  
AND DATA  
COLLECTION:  
MoDOT collects this data  
from the Statewide Trans-  
portation Improvement  
Program and the permits  
database. The dollars are  
shown in the state fiscal  
year in which construction  
contracts are awarded and  
permit jobs are issued.  
The percent is the number  
of cost-sharing projects  
divided by the total number  
of projects per year in the  
STIP.

### *Number of dollars generated through cost-sharing and partnering agreements for transportation-6e*

MoDOT works with public agencies to leverage its limited resources to implement projects that might not otherwise be built. Cost-share projects are transportation improvements in which costs are shared by MoDOT and other public agencies such as cities and counties. MoDOT allocated \$30.0 million in fiscal years 2010-2011, \$37.5 million in FY 2012, \$47.5 million in FY 2013 and \$44.9 million in FY 2014 for cost-share projects. In addition, MoDOT also partners with developers and other private entities to make improvements to the state transportation system through the permitting process. The Missouri Highways and Transportation Commission suspended the Cost Share Program at its January 2014 meeting.

The amount of funds invested by partnering entities in MoDOT projects for FY 2014 of \$76.0 million is above the five-year average of \$69.0 million and the same as FY 2013. Funding through the permit process was higher in FY 2014 than FY 2013, while funding from other sources in the STIP was lower in FY 2014 than FY 2013.

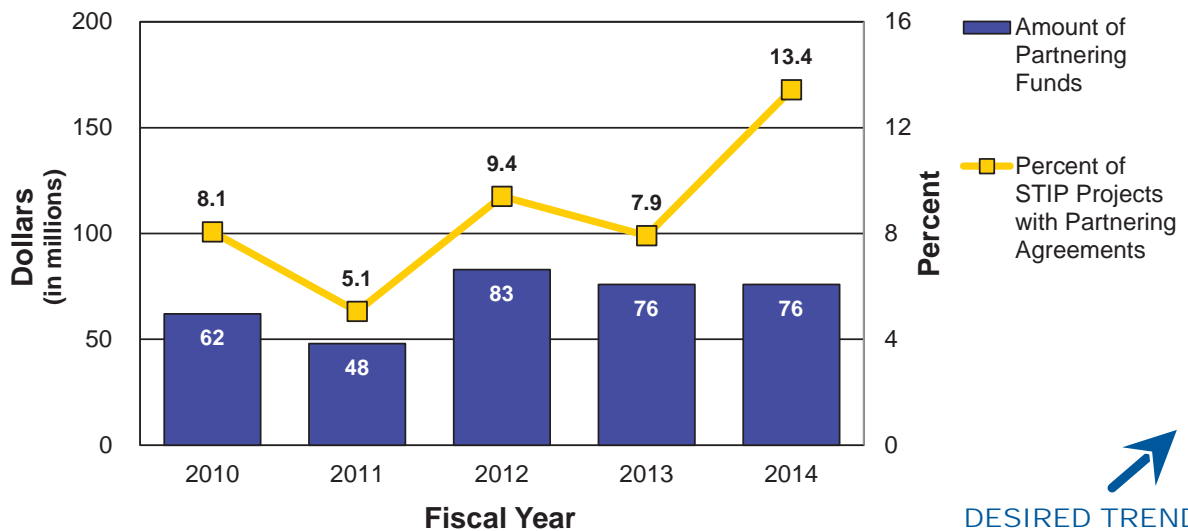
The percent of projects with funding participation from partnering agencies for FY 2014 is 13.4 percent, which is significantly higher than the five-year average of 8.8 percent. However, these projects have shifted from major projects to taking care of the system projects and smaller scale projects. This has resulted in the average partnership contribution to MoDOT projects to decrease from \$1.7 million in FY 2013 to \$866,000 in FY 2014.

As a greater share of MoDOT funds are focused on taking care of the system, partner contributions to MoDOT projects are expected to continue to decline. The value of permit projects may increase if the economy continues to improve and public and private entities fund expansion projects to address emerging needs that MoDOT cannot address with its limited project funds.

## USE RESOURCES WISELY



**Number of Dollars Generated Through Cost-sharing and Partnering Agreements for Highway and Bridge Projects**



RESULT DRIVER:  
Brenda Morris,  
Financial Services Director

## USE RESOURCES WISELY

MEASUREMENT  
DRIVER:  
Dion Knipp,  
Administrator of Transit

PURPOSE OF  
THE MEASURE:  
This measurement provides  
the percent of state funds  
invested in other modes  
of transportation. Modes  
include aviation, rail, transit,  
waterways and freight.

MEASUREMENT  
AND DATA  
COLLECTION:  
Investments in other modes  
of transportation repre-  
sent the state and federal  
dollars spent on aviation,  
rail, transit, waterways and  
freight. Federal investments  
represent the amount spent  
on MoDOT-administered  
programs only. Investments  
are limited to the amounts  
appropriated by the state  
legislature each year.

### *Percent of state funds invested in other modes of transportation-6f*

During the long-range planning process, “On the Move,” Missourians chose more transportation choices as a top priority. MoDOT works closely with its multimodal partners to provide more choices within the available funding amounts. In fiscal year 2014, state and federal expenditures for multimodal programs increased \$3 million and \$3.5 million, respectively.

Aviation - State expenditures decreased by \$1.3 million to \$4 million, but federal expenditures increased by \$8 million to \$26 million. In FY 2014, state funds were 13 percent of total funds invested. Local funds in FY 2014 totaled \$3.1 million. FAA and State Aviation Trust funds require a minimum local match of 10 percent.

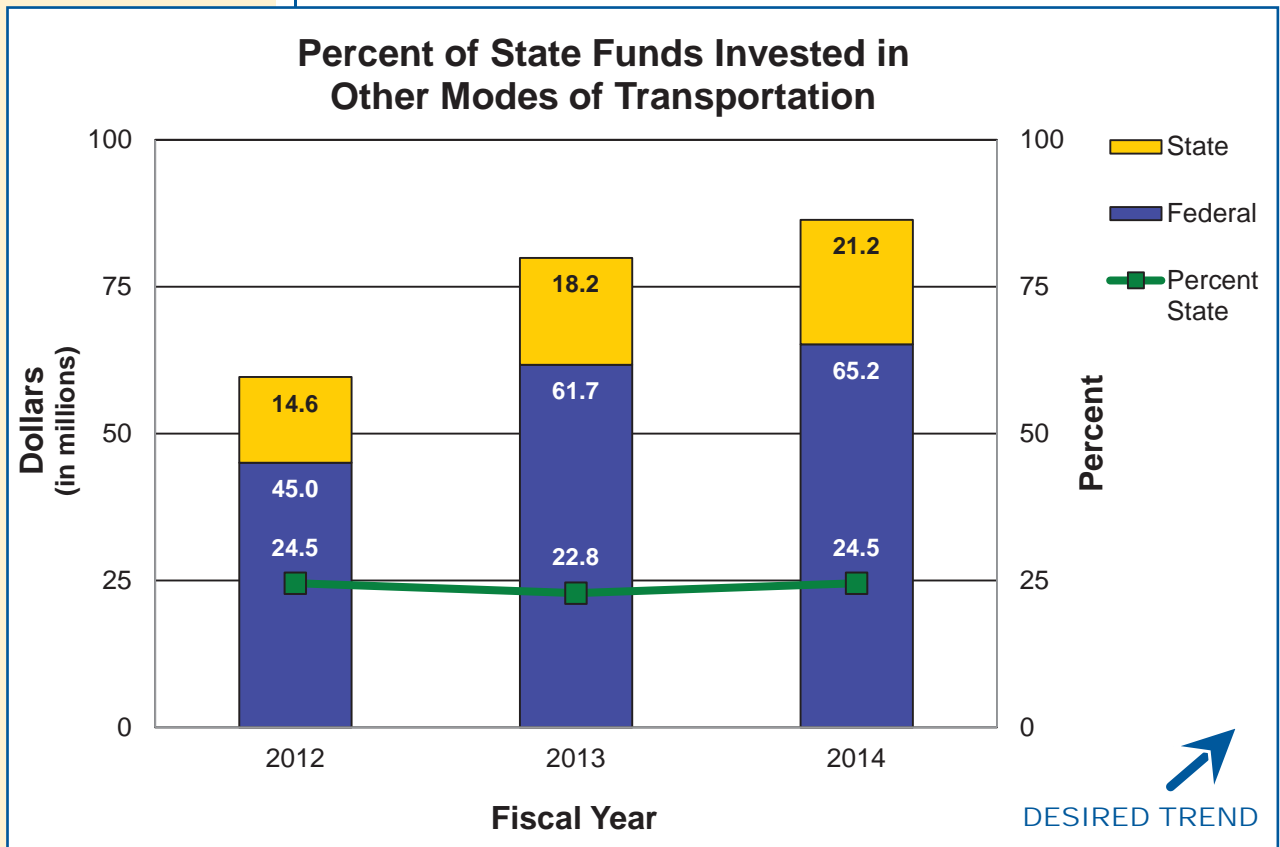
Rail - State expenditures increased by \$800,000 to \$10.1 million, and federal expenditures decreased by \$200,000 to \$13.3 million. In FY 2014, state funds were 43 percent of total funds invested. Ticket revenue from the Missouri River Runner and Railroad funds contributed \$10.1 million to offset state costs in FY 2014.

Transit - State expenditures decreased by \$100,000 to \$2.9 million, and federal expenditures decreased by \$4.1 million to \$25.9 million. In FY 2014, state funds were 10 percent of total funds invested. FTA funds require a local match of varying percentages depending on the program. Local funds contributed to the State Transit Assistance Program and the Missouri Elderly and Handicapped Transportation Assistance Program (MEHTAP) program were insignificant with state expenditures accounting for less than 1 percent of these two programs combined.

Waterways - State expenditures increased by \$2.7 million to \$3.3 million, but federal expenditures decreased from \$200,000 to zero dollars. Local funds in FY 2014 totaled \$700,000. The waterways capital improvement program requires a minimum local match of 20 percent.

Freight - State expenditures increased from zero dollars to \$900,000, but federal expenditures were zero dollars. Local funds in FY 2014 totaled \$200,000. The freight enhancement program requires a minimum local match of 20 percent.

## USE RESOURCES WISELY



**RESULT DRIVER:**  
Brenda Morris,  
Financial Services Director

## USE RESOURCES WISELY

**MEASUREMENT DRIVER:**  
Kenny Voss,  
Local Program Administrator

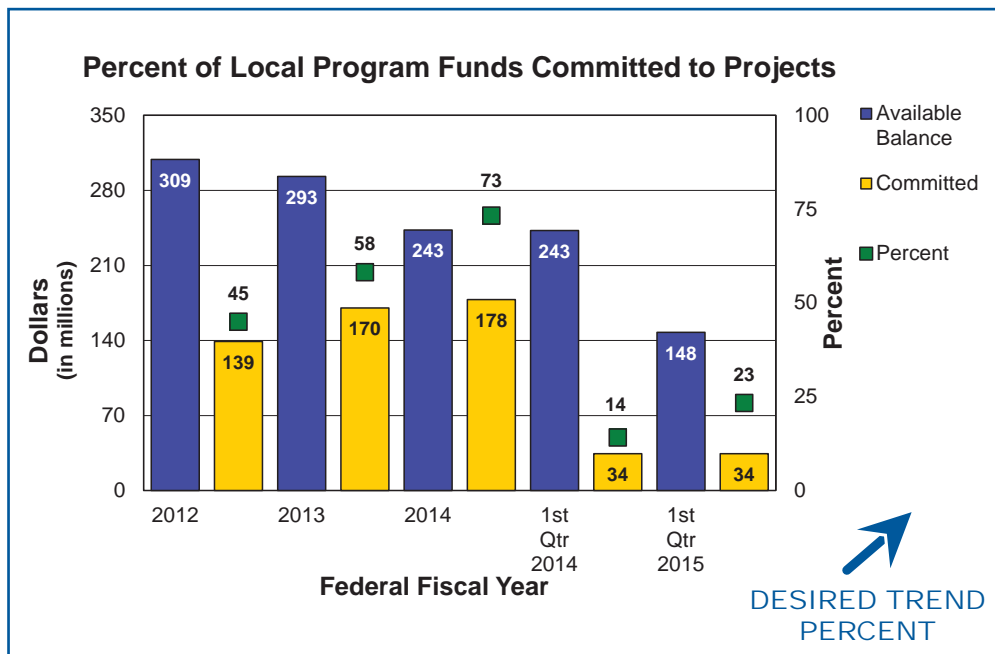
**PURPOSE OF THE MEASURE:**  
This measure tracks the percent of available Local Program funds committed to projects.

**MEASUREMENT AND DATA COLLECTION:**  
The data is obtained from Federal Highway Administration's Fiscal Management Information System and is based on the federal fiscal year from October 1 through September 30. The committed amounts represent what FHWA will reimburse for the project. The available amounts represent the federal program funds distributed to local sponsors. The goal of this measure is to commit all federal funds available to local public projects.

### *Percent of local program funds committed to projects-6g*

Some of the federal funds MoDOT receives are required to be passed through to local entities, such as cities and counties. Available funds for local entities include those that are allocated this year and those that have not been committed in prior years. When local entities use federal funds, they provide the matching funds. Matching funds provided by local entities help MoDOT use all of the transportation federal funding available to Missouri.

As of the first quarter of federal fiscal year 2015, 23 percent (\$34 million) of the \$148 million in available funds has been committed to local projects. All federal funds for fiscal year 2015 are not yet available. This represents a \$30 thousand increase in commitments compared to FFY 2014. Since FFY 2012, the percent of local program funds committed to projects has increased from 45 percent to 73 percent. MoDOT has a goal of 90 percent of local program funds committed to projects for federal fiscal year 2015.



RESULT DRIVER:  
Brenda Morris,  
Financial Services Director

MEASUREMENT  
DRIVER:  
Sunny Wilde,  
Resource Management  
Specialist

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
percent of inactive federal  
projects.

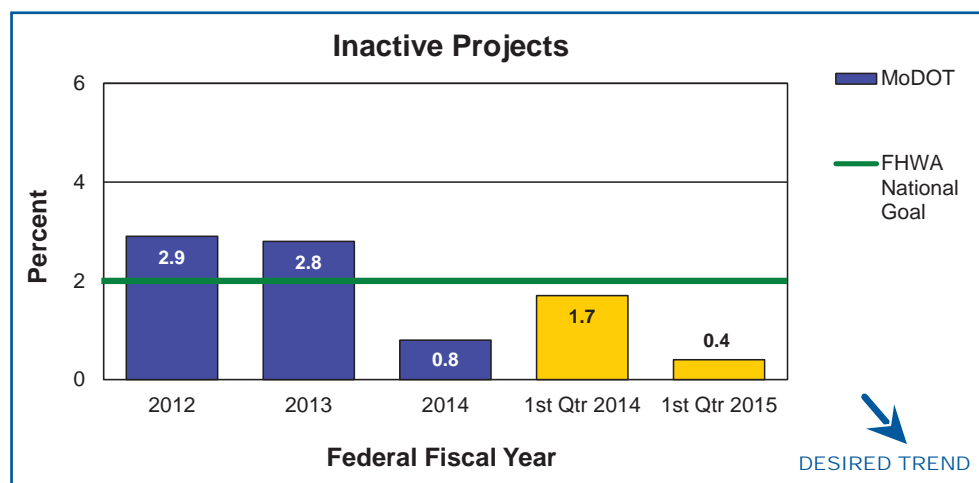
MEASUREMENT  
AND DATA  
COLLECTION:  
The data is obtained from  
Federal Highway Adminis-  
tration's quarterly inactive  
projects report and is based  
on the federal fiscal year  
from October 1 through  
September 30. The inac-  
tive report includes projects  
with no expenditure activ-  
ity for more than one year.  
MoDOT uses a tracking  
database to assist in the  
analysis and reporting of  
inactive projects.

## USE RESOURCES WISELY

### *Inactive projects-6h*

Project funds must be spent for taxpayers to benefit from their transportation investments. As resources continue to dwindle, ensuring available resources are committed to active projects is essential to maintaining the existing transportation system. Due to project schedule delays or lags in receiving project invoices, funds sometimes do not get spent in timely manner. When this happens, MoDOT analyzes projects to determine why there has been no activity, and actions are taken to accelerate project activity. Discussions with local project sponsors often are used to ensure invoices are submitted on a timely basis.

Due to MoDOT's increased efforts, inactive projects have declined from 2.9 percent in 2012 to 0.4 percent (\$3.9 million) in the first quarter of 2015. For the first quarter of federal fiscal year 2015, Missouri's inactive projects were below FHWA's national goal of 2 percent and below the national total inactive percentage of 1 percent. MoDOT's continued efforts to identify projects that will potentially become inactive in the coming months and taking any necessary actions on those projects has ensured the funds committed to projects are valid.



RESULT DRIVER:  
Brenda Morris,  
Financial Services Director

MEASUREMENT  
DRIVER:  
Doug Hood,  
Financial Services  
Administrator

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
amount of advance con-  
struction funds.

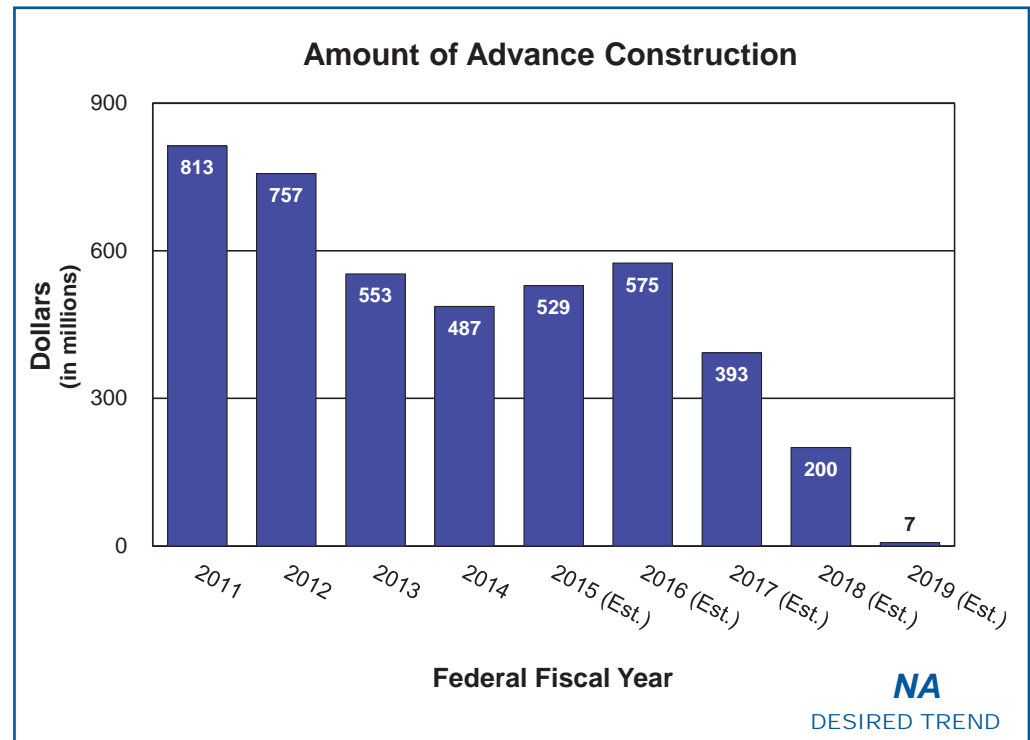
MEASUREMENT  
AND DATA  
COLLECTION:  
MoDOT collects this data  
from Federal Highway  
Administration's Fiscal  
Management Information  
System. The federal fiscal  
year is from October 1 to  
September 30. Fiscal years  
2015-2019 are estimates  
from the current financial  
forecast. The amount of ad-  
vance construction is based  
on the total estimated proj-  
ect costs.

## USE RESOURCES WISELY

### *Amount of advance construction-6i*

Advance construction is an innovative finance tool MoDOT uses to more efficiently manage its limited resources. Advance construction helps provide the 20 percent match required for federal funds. Without advance construction, MoDOT would be unable to match federal funds today. As the amount of advance construction declines, the ability to match federal funds becomes more difficult.

By 2020, MoDOT won't have enough state revenue to match federal funds. That means Missouri's unmatched federal funds will be directed to other states and lost forever to improve Missouri's transportation system.



RESULT DRIVER:  
Brenda Morris,  
Financial Services Director

MEASUREMENT  
DRIVER:  
Kevin James,  
Assistant District Engineer

PURPOSE OF  
THE MEASURE:  
This measure tracks  
progress of fleet usage  
compared to department  
thresholds based on annual  
mileage over the life of the  
equipment. The measure  
also tracks fuel efficiency  
for the five vehicle classes  
representing the majority of  
fleet expenditures and miles  
driven.

MEASUREMENT  
AND DATA  
COLLECTION:  
Data reflects performance  
for the vehicle based on its  
age. Ideal fleet usage falls  
within 75 to 125 percent of  
the vehicle's threshold. For  
example, a passenger car  
has a threshold of 15,000  
miles per year. If a car is  
three years old, the mileage  
should be between 33,750  
to 56,250 miles. The fleet  
threshold analysis graphs  
are updated in January and  
July. This measure also  
reports MoDOT's total fuel  
consumed and shows how  
fleet choices can affect fuel  
economy. The fuel data is  
collected in the statewide  
financial system. Mileage  
data is obtained from the  
FASTER fleet management  
system. Mileage data is  
obtained from the FASTER  
fleet management system.

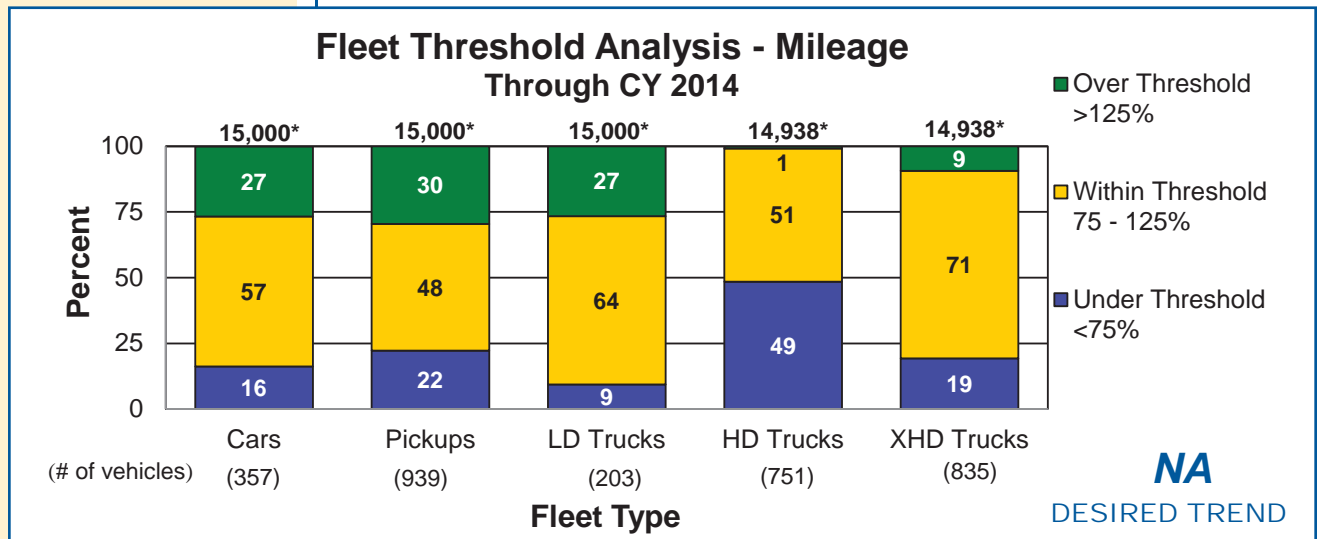
## USE RESOURCES WISELY

### *Fleet utilization and fuel efficiency-6j*

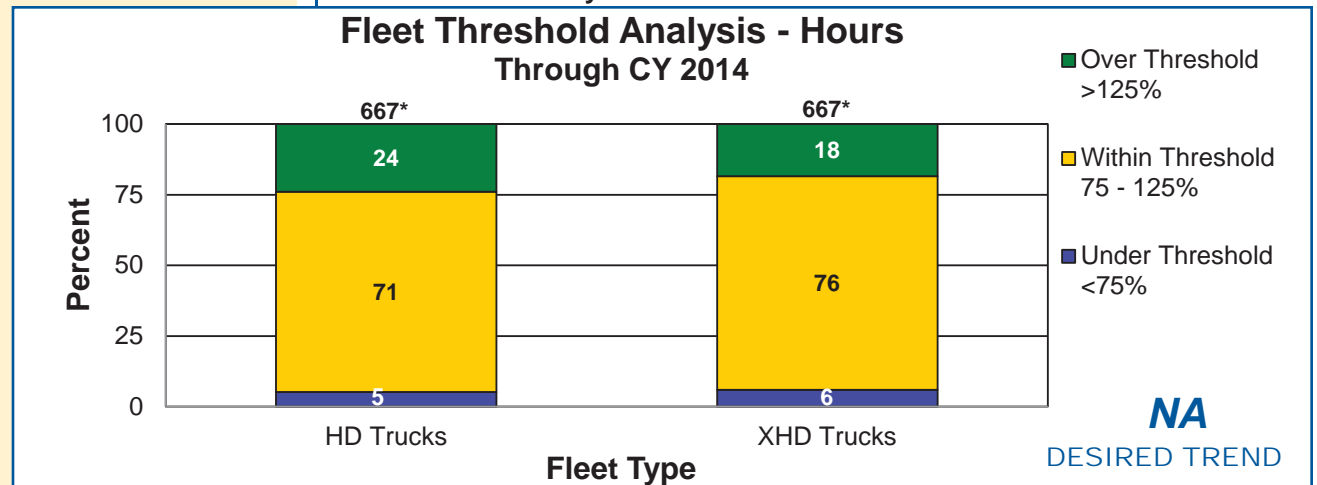
The fleet threshold measure was revised to give a better indication of where our fleet is regarding usage. Also, new fleet thresholds were implemented revising fleet life expectancy information for age and meter. Therefore the analysis is based on the age of the fleet units and the current meter/hour readings. The chart shows fairly consistent data for the cars, pickups, and Light Duty Trucks averaging around 56 percent being within threshold. The Heavy Duty Truck class has 49 percent currently below threshold based on miles, but only 5 percent below threshold based on hours. The Heavy Duty Truck class has 71 percent currently within threshold on miles and hours. An increase in over threshold equipment will result in equipment requiring replacement before its expected life.

The fuel consumption and fuel efficiency measures are both following the desired trend directions. Fuel consumption so far in FY 2015 has decreased by 449,000 gallons compared to FY 2014. Mileage recorded for these five vehicle classes in FY 2015 has reduced 1,624,008 miles compared to FY 2014. During second quarter FY 2015, fewer gallons were used to perform snow and ice removal. Changes in fuel use by activity resulted in an increase in fuel efficiency of 1.1 miles per gallon.

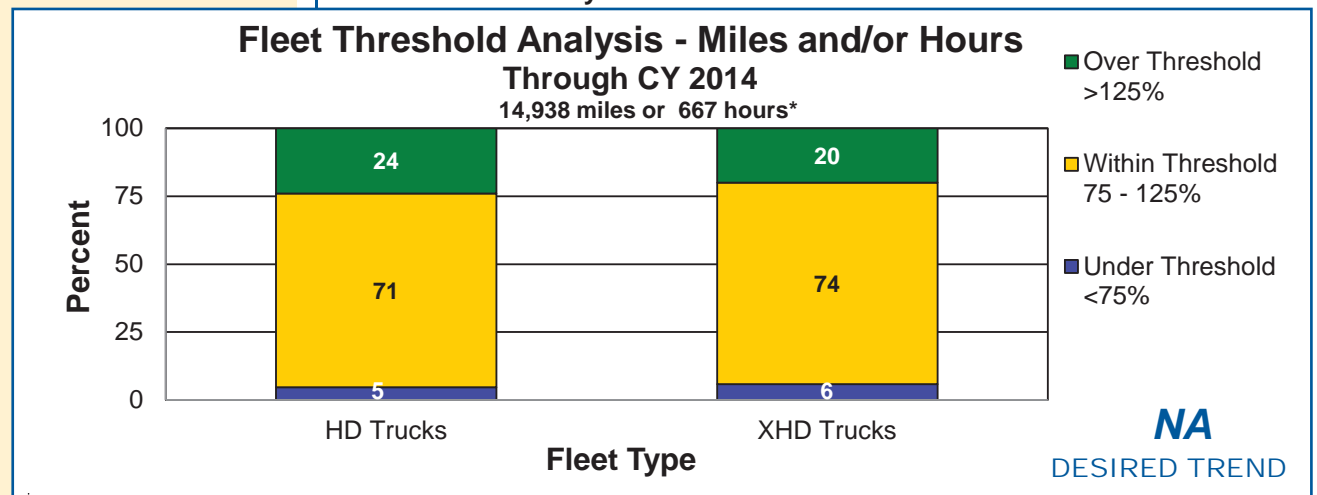




Fleet threshold analysis based on life of vehicle. \*Annual miles threshold



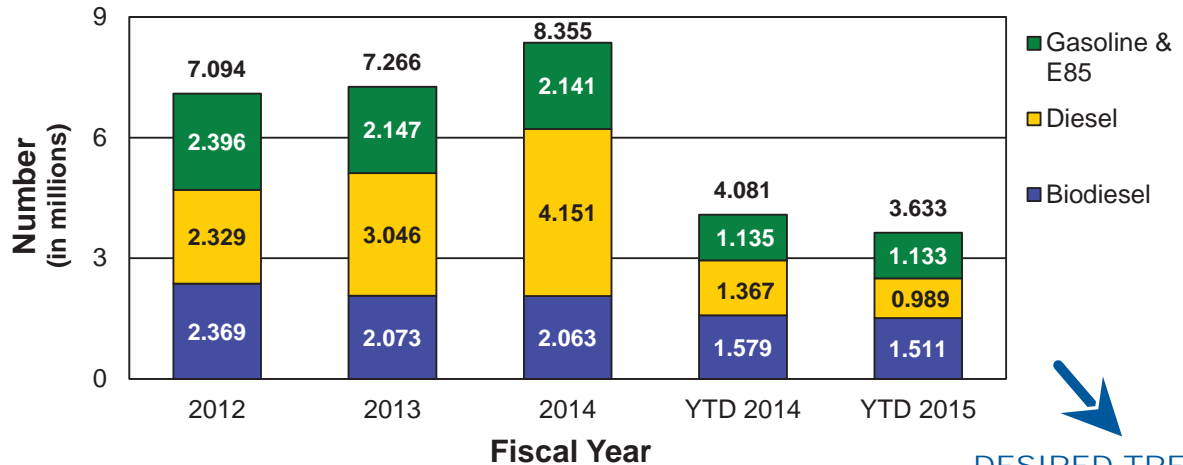
Fleet threshold analysis based on life of vehicle. \*Annual hours threshold



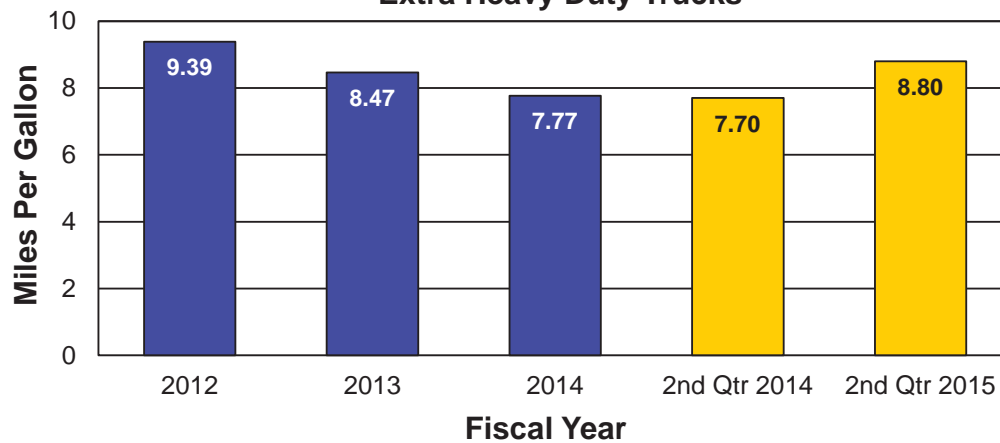
Fleet threshold analysis based on life of vehicle. \*Annual miles and/or hours threshold

## USE RESOURCES WISELY

### Gallons of Fuel Consumed



### Average Miles Per Gallon Cars, Pickups, Light Duty Trucks, Heavy Duty Trucks and Extra Heavy Duty Trucks



RESULT DRIVER:  
Brenda Morris,  
Financial Services Director

#### MEASUREMENT DRIVER:

Jay Bestgen, Assistant  
State Construction and  
Materials Engineer

#### PURPOSE OF THE MEASURE:

This measure tracks  
MoDOT's recycling efforts  
in construction projects and  
internal operations.

#### MEASUREMENT AND DATA COLLECTION:

The recycled material  
used in construction proj-  
ects is measured through  
MoDOT's SiteManager  
database, which tracks  
material incorporated into  
projects. Data is collected  
on an annual basis due to  
the seasonal nature of con-  
struction. Recycled material  
from internal MoDOT opera-  
tions, are captured from the  
annual Missouri State Re-  
cycling Program report and  
from other internal records.

## USE RESOURCES WISELY

### *Number of tons of recycled material-6k*

In 2004, recycled asphalt pavements and roof shingles started being incorporated into new asphalt pavements to help offset increasing costs. While the cost of rock, sand, liquid asphalt, labor, fuel and equipment have increased since 2004, recycling efforts have helped offset the cost increases. In 2013, 29 percent of the 3.3 million tons of new asphalt pavement constructed came from recycled components. This saved MoDOT and taxpayers about \$11 per ton, or \$30 million overall. The \$30 million savings would be equivalent to improving 680 miles of a two-lane roadway with a thin overlay.

MoDOT also recycles materials no longer needed for internal operations. The majority of the recycled products come from: aluminum, cardboard, office paper, scrap rubber/tires, scrap metal, motor oil and wood pallets. Of these, 2,500 tons of scrap metal makes up the majority of the recycling followed by 641 tons of rubber/tires (equivalent to more than 61,000 passenger car tires) and 95 tons of motor oil (equivalent to about 27,000 gallons). In fiscal year 2013, it cost over \$210 thousand to recycle some items, such as scrap rubber/tires and to shred documents. However, other recycling efforts returned over \$1.2 million in revenue. The net result was just over \$1 million.

Recycling is good for the environment and helps stretch limited funding. With costs continuing to increase, fuel tax revenues declining and federal funding being uncertain, it is important to focus on increasing recycling efforts.



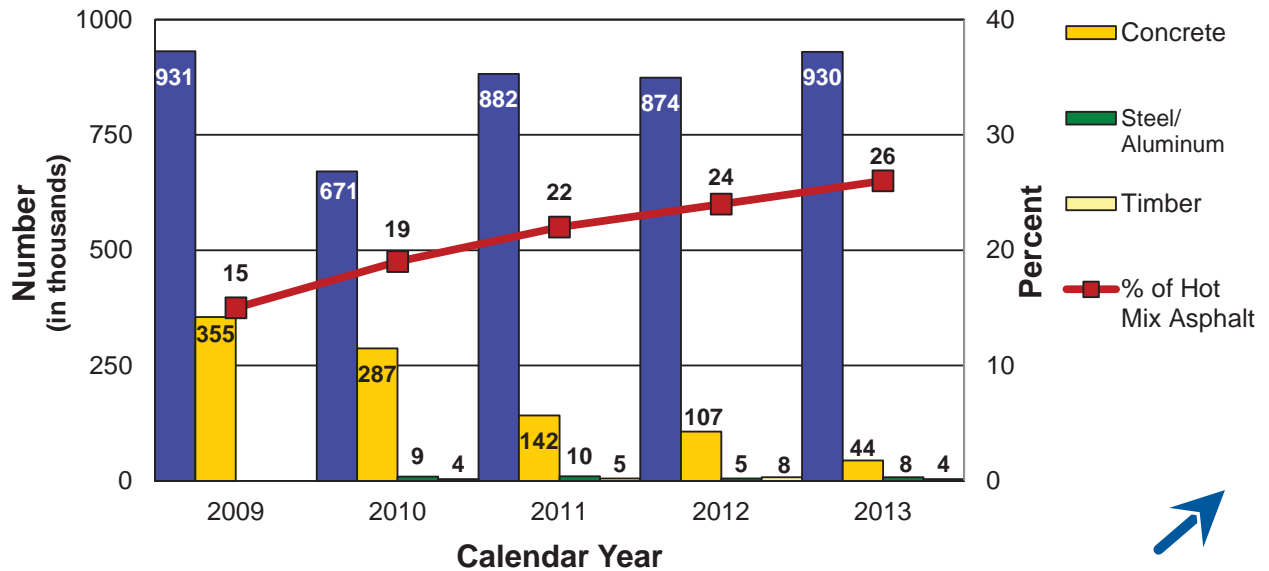
#### **Roofs to Roads**

**MoDOT is among  
the first state  
agencies in the  
nation to recycle  
shingles to resur-  
face or rebuild  
highways.**



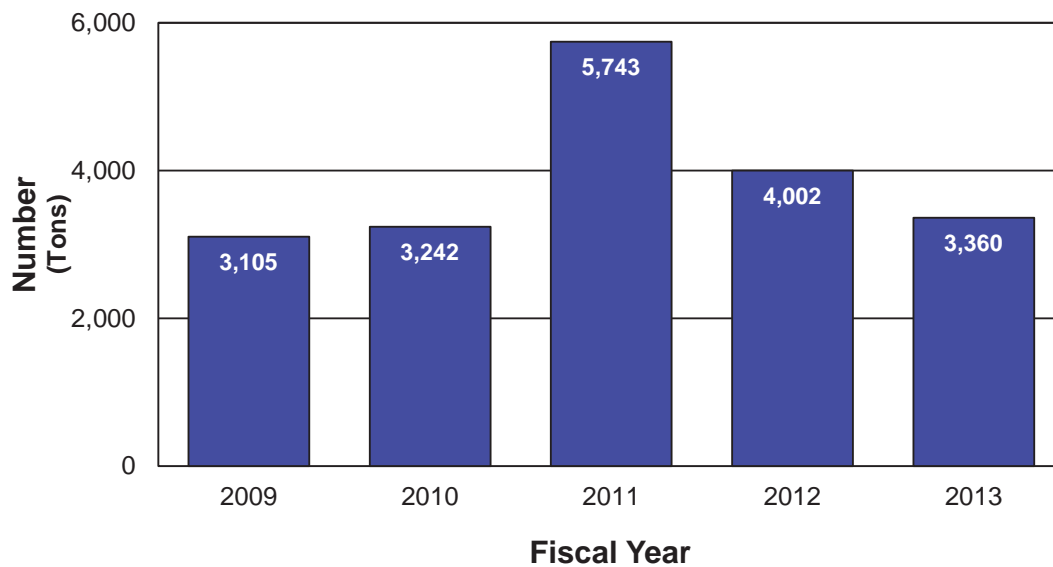
## USE RESOURCES WISELY

### Number of Tons of Recycled Materials Used in Roadway Projects



DESIRED TREND

### Number of Tons of Material Recycled by MoDOT



DESIRED TREND

RESULT DRIVER:  
Brenda Morris,  
Financial Services Director

## USE RESOURCES WISELY

MEASUREMENT  
DRIVER:  
Gayle Unruh,  
Environmental and Historic  
Preservation Manager

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
annual trend of compli-  
ance with environmental  
laws and regulations, which  
includes obtaining and  
abiding by specific require-  
ments contained in various  
permits.

MEASUREMENT  
AND DATA  
COLLECTION:  
Notices of Violation are  
similar to a traffic ticket as  
they are written to indicate  
you are operating outside  
of legal limits. A Letter of  
Warning indicates that there  
are problems and if not  
corrected could lead to an  
NOV. Issued by environ-  
mental regulatory agencies,  
NOVs, LOWs and letters  
of satisfactory inspections  
are collected and tracked  
by location and/or project.  
The measure reports by  
calendar year the number of  
NOVs, LOWs and satisfac-  
tory inspections received  
by the department for any  
activity.

### *Number of environmental warnings and violations – 6l*

MoDOT seeks to reduce its impact on Missouri natural resources by complying with environmental laws and regulations. The department is serious about protecting human health, air, water, wildlife and ecosystems. Compliance with environmental laws and regulations helps to prevent and counteract possible damage from MoDOT activities. Under current funding constraints, it is also important to avoid violations. Violations with fines assessed against MoDOT result in less funding for transportation projects.

MoDOT has a zero-tolerance policy toward any NOV from regulating agencies, such as the Missouri Department of Natural Resources or the Environmental Protection Agency. Department employees study the situations that lead to NOVs and LOWs and then take action to prevent future occurrences.

For calendar year 2014, MoDOT received zero NOVs. The number of NOVs during the past five years (2010-2014) has ranged from zero to seven, LOWs ranged from four to 15. The trend for number of NOVs is down over the last five years. LOWs are down significantly from the previous year.

MoDOT received four LOWs from DNR. One LOW was issued for failure to submit a quarterly discharge monitoring report on a rest area lagoon. An LOW was issued for various petroleum and hazardous waste management deficiencies. The third LOW was for unsatisfactory features related to erosion control at a construction site. The fourth was for unsatisfactory features at a maintenance facility linked to failure to properly handle various categories of waste.

Although not issued to MoDOT, an LOW for unsatisfactory land disturbance and erosion and sediment control features was issued by DNR to a contractor for a permitted borrow site.

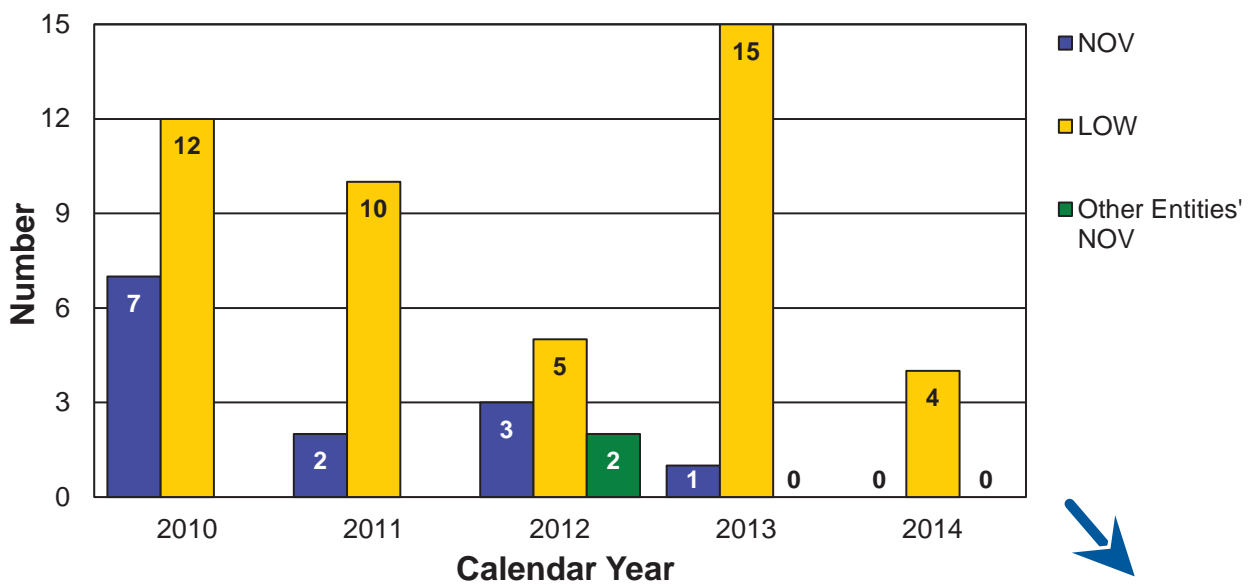
During this same period, the department also received six letters of satisfactory inspections from DNR. One letter of inspection stated that the site had no deficiencies in hazardous waste management. One noted a minor correction to safety placarding, which was made during the inspection, but did not note any violations. Four letters detailed satisfactory land disturbance inspections of construction projects.

MoDOT continues to work with facility supervisors and construction inspectors through training and dialog to comply with permit requirements.

## USE RESOURCES WISELY



**Number of Notices of Violation and Letters of Warning**



**Note:** There is no benchmark data presented with this measure. MoDOT has a zero-tolerance policy toward NOV's. Therefore, regardless of what other states are doing, MoDOT's desired results are zero NOV's, because NOV's are usually violations of law and state statute.

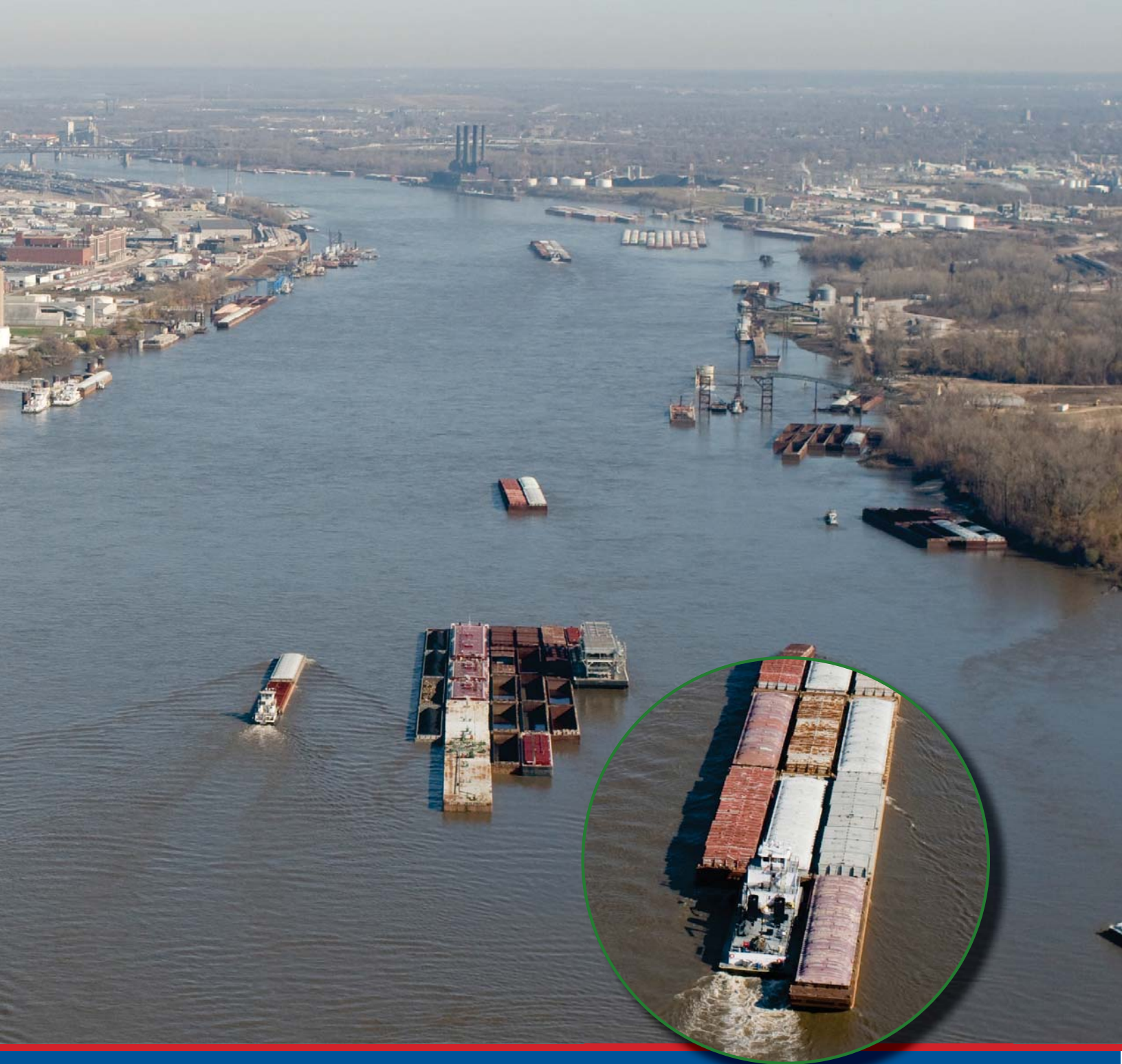


# ADVANCE ECONOMIC DEVELOPMENT

*Machelle Watkins, Transportation Planning Director*

 **Tracker**

MEASURES OF DEPARTMENTAL PERFORMANCE



Missouri's transportation system has a direct impact on the state's economy. Missouri businesses depend on our roadways, rail, waterways and airports to move their products and services both nationally and globally. An efficient, well-connected transportation system helps attract new businesses to our communities and helps existing businesses maintain a competitive edge with easy customer access, minimal shipping costs and strong links to a diverse workforce. We believe investments in transportation should create jobs and provide opportunities for advancement to all Missouri citizens. An investment in transportation should provide a positive economic impact on both the citizens we serve and the communities in which they live.

RESULT DRIVER:  
Machelle Watkins,  
Transportation Planning  
Director

MEASUREMENT  
DRIVER:  
Eva Voss, Senior  
Transportation Planner

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
economic impact resulting  
from the state's transporta-  
tion investments.

MEASUREMENT  
AND DATA  
COLLECTION:  
MoDOT works with the  
Economic Development  
Research Group to perform  
economic impact analyses  
for the state's transportation  
investments. The analyses  
are performed using a mod-  
el called the Transportation  
Economic Development  
Impact System, or TREDIS.  
The TREDIS model results  
demonstrate a strong link  
between transportation  
investment and economic  
development.

## ADVANCE ECONOMIC DEVELOPMENT

### *Economic return from transportation investment-7a*

Investment in transportation improvements have long been held as a major economic engine that drives growth in job creation, personal income and new value added to Missouri's economy. However, decreasing transportation funding and increasing costs have decreased at the levels of economic return.

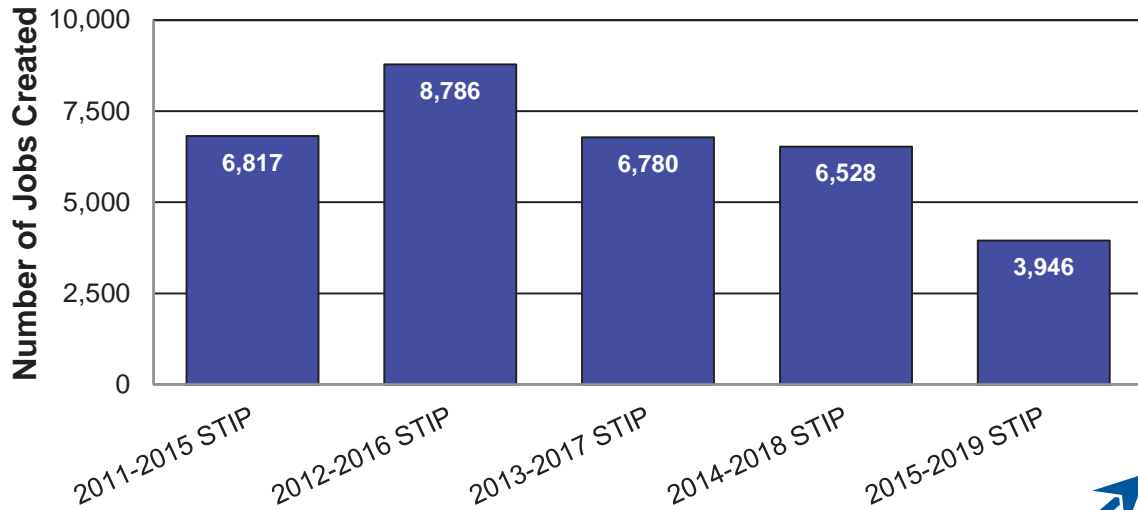
Based on MoDOT's 2015-2019 Statewide Transportation Improvement Program investment of \$3.5 billion, the program is estimated to create 3,946 new jobs. Transportation investments are expected to contribute \$10.1 billion of economic output during the next 20 years, resulting in a \$2.97 return on every \$1 invested in transportation.

The most recent economic analysis of the 2015-2019 STIP included an updated methodology, which included higher wage rates, increased labor productivity and fewer large transportation improvement projects. While providing a more accurate estimate of economic return, the overall result is transportation investments support fewer jobs and a smaller return for every dollar invested. The figures tell a powerful story of economic success, but are also a sign of missed opportunity. When compared to the previous year's STIP (2014-2018), the number of jobs created estimate decreased 40 percent. For the first time, this year's results also include multimodal projects.

As decreasing transportation funding and increasing costs chip away at the levels of economic return, the situation will become more drastic as MoDOT's annual construction program drops from over \$700 million in 2015 to less than \$600 million in 2016, and drops to slightly more than \$300 million in 2017-2019.

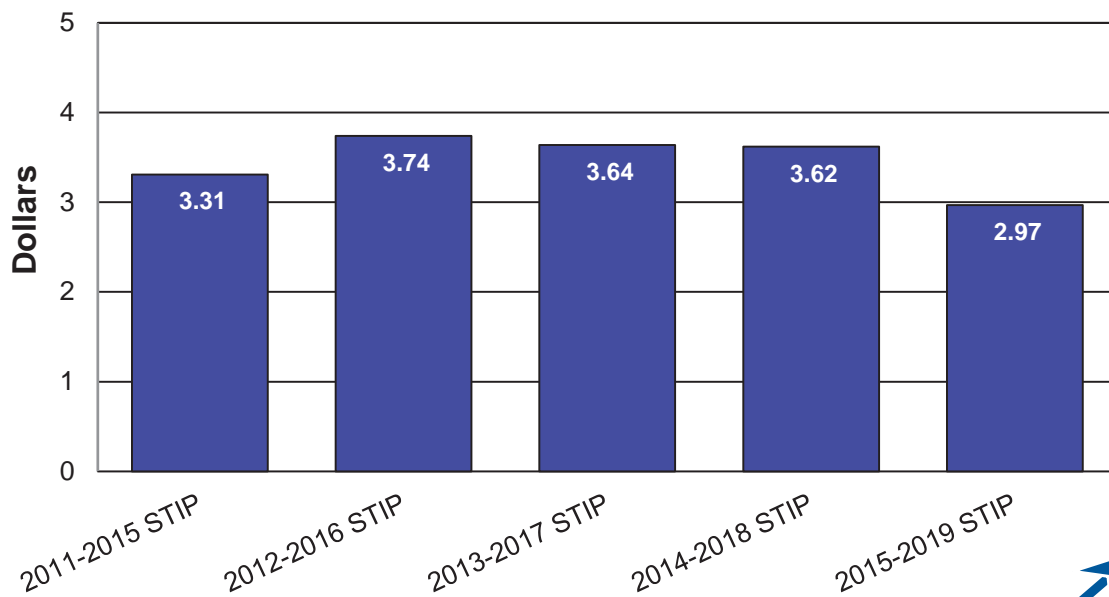


### Economic Return from Transportation Investments Annual Employment Benefit



↑  
DESIRED TREND

### Economic Return from Transportation Investments 20-Year Benefit Ratio for Every Dollar Invested



↑  
DESIRED TREND

**RESULT DRIVER:**  
Machelle Watkins,  
Transportation Planning  
Director

**MEASUREMENT  
DRIVER:**  
Ben Reeser,  
Long-Range Transportation  
Planning Coordinator

**PURPOSE OF  
THE MEASURE:**  
This measure analyzes the  
strength of Missouri's trans-  
portation infrastructure for  
conducting business.

**MEASUREMENT  
AND DATA  
COLLECTION:**  
Data for this measure is ob-  
tained from an annual study  
conducted by the Consumer  
News and Business Chan-  
nel. The study scores all  
50 states on 56 measures  
of competitiveness devel-  
oped collaboratively with  
business groups including  
the National Association  
of Manufacturers and the  
Council on Competitive-  
ness, as well as the states  
themselves. Metrics are  
separated into 10 catego-  
ries, including infrastruc-  
ture and transportation.  
The infrastruc- and transpor-  
tation category measures the  
following for each state:

- Value of goods shipped  
by air, waterways, roads  
and rail (2013 based  
on quantity of goods  
shipped, not value)
- Availability of air travel
- Quality of roads and  
bridges
- Time it takes to commute  
to work (added in 2012)
- Supply of safe drinking  
water (added in 2013)

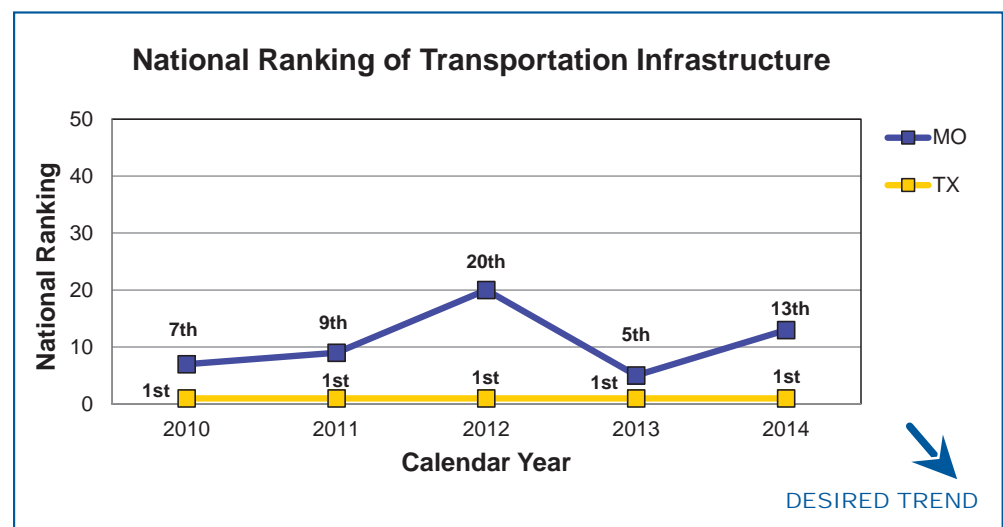
## ADVANCE ECONOMIC DEVELOPMENT

### *National ranking of transportation infrastructure-7b*

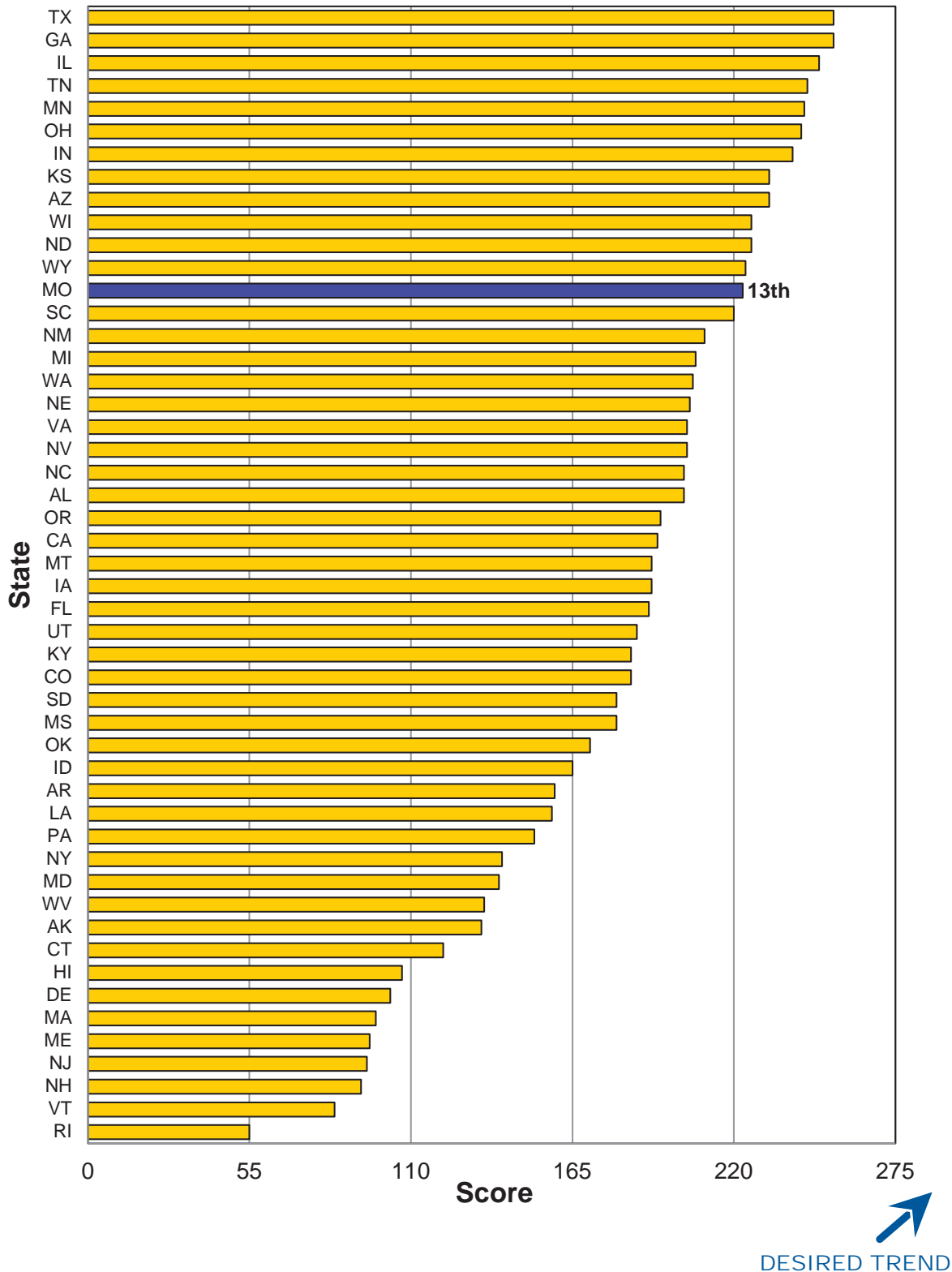
Transportation infrastructure leads to the attraction of new businesses and of employers looking to expand. These actions lead to new jobs, new opportunities and new revenue for states. A robust transportation infrastructure allows manufacturers to distribute their products quickly and inexpensively and allows citizens to get to work and to conduct business efficiently.

Prior to 2012, Missouri's national rank in transportation infrastructure was in the top nine. In 2012, Missouri decreased to 20 in the national ranking as the measure added time it takes to commute to work. The ranking improved in 2013 as the measure changed to quantity of goods shipped instead of value. Missouri's ranking declined again in 2014 as the measure changed back to value of goods shipped instead of quantity.

Missouri's ranking of 13th best in the nation is challenging to maintain as the state's annual transportation infrastructure funding decreased from \$1.2 billion to \$700 million beginning in 2011, and is projected to decline to \$325 million beginning in fiscal year 2017. At that point, MoDOT will not be able to keep the transportation system in the shape it is in today. Many of the factors used to rank transportation infrastructure are expected to decline.



## 2014 Transportation Infrastructure Scores by State



RESULT DRIVER:  
Machelle Watkins,  
Transportation Planning  
Director

MEASUREMENT  
DRIVER:  
Tona Bowen,  
Financial Services  
Administrator

PURPOSE OF  
THE MEASURE:  
The measure reports how  
Missouri's state highway  
system funding situation  
compares to that of other  
states.

MEASUREMENT  
AND DATA  
COLLECTION:  
Per state revenue and high-  
way mileage counts used in  
this measure are gathered  
from Federal Highway Ad-  
ministration annual reports.  
The information is updated  
as the data becomes avail-  
able from the Federal High-  
way Administration. The  
bridge count information  
was received from Better  
Roads magazine.

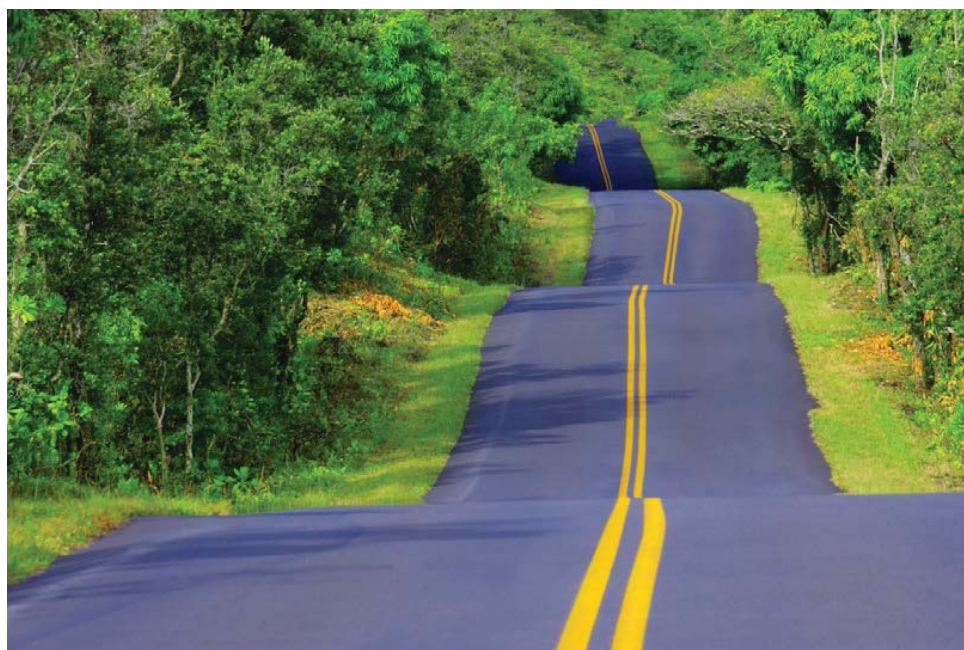
## ADVANCE ECONOMIC DEVELOPMENT

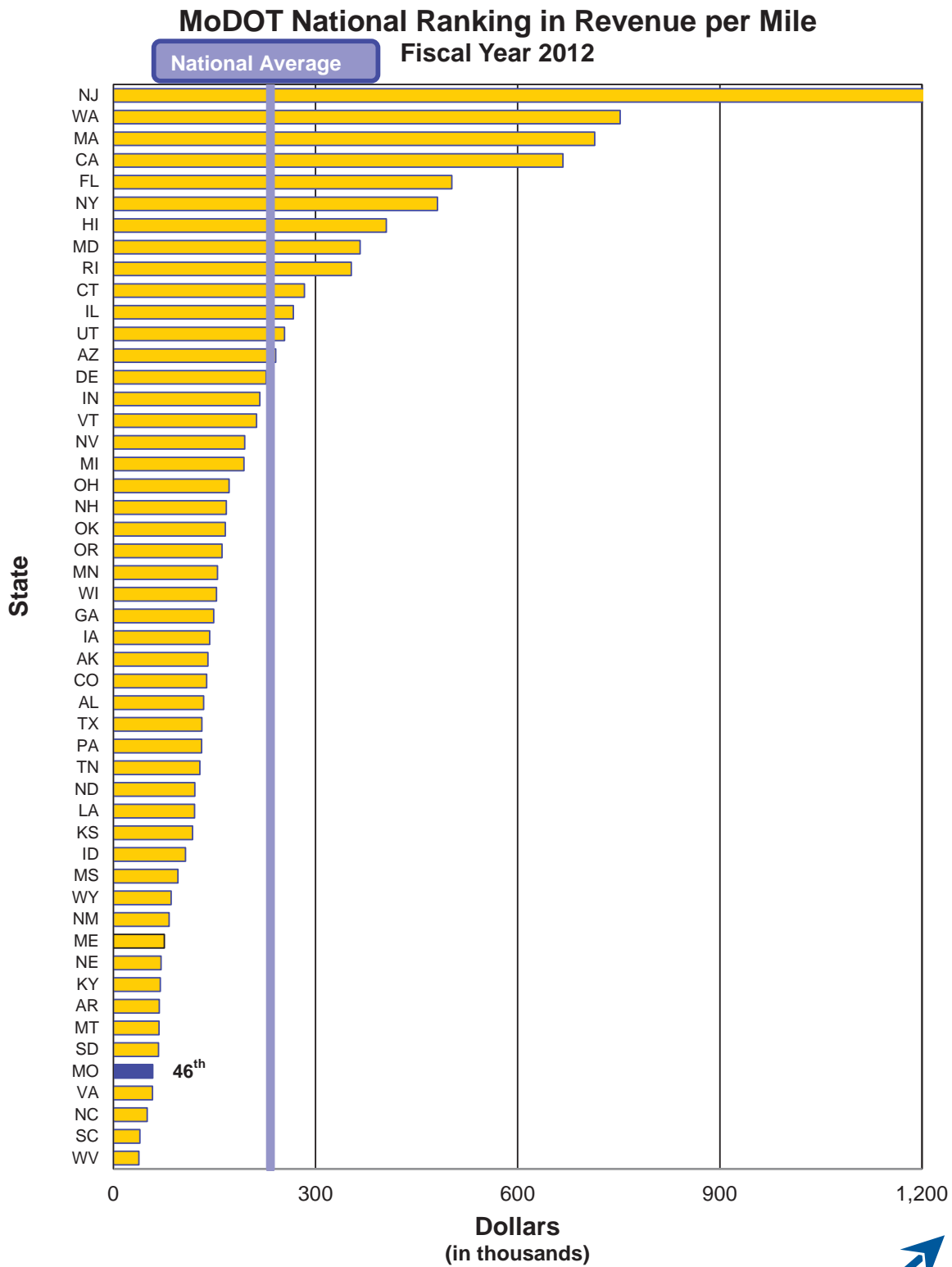
### *MoDOT national ranking in revenue per mile-7c*

Missouri's revenue per mile of \$58,234 currently ranks 46th in the nation. Missouri's state highway system, consisting of 33,890 miles, is the seventh largest system in the nation. In addition, Missouri ranks sixth nationally in number of bridges with 10,371 bridges. New Jersey's revenue per mile of \$1,859,492 ranks first. However, its state highway system includes only 2,326 miles and 2,408 bridges.

The cost to build and maintain roads and bridges increased sharply during the past 10 years due to inflation. In contrast, revenues from fuel taxes continue to decrease as vehicles become more fuel efficient and people drive less.

MoDOT stretches transportation revenue as far as it can, in order to put as much as possible into roads and bridges. However, MoDOT's revenue per mile will continue to plummet if the current projections hold true. By 2020, MoDOT won't have enough state revenue to match federal funds. The unmatched funds will be given to other states instead. By fiscal year 2017, construction funding will not cover the cost of keeping Missouri's transportation system in the shape it is in today and won't begin to address the system expansion projects Missourians desire in their transportation system.





RESULT DRIVER:  
Machelle Watkins,  
Transportation Planning  
Director

MEASUREMENT  
DRIVER:  
Cheryl Ball,  
Waterways and Freight  
Administrator

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
estimated cost of transport-  
ing representative Missouri  
products from key economic  
industries (chemical manu-  
facturing, transportation  
equipment, and agriculture)  
to top destinations as com-  
pared to shipping the same  
products from competitor  
states. The relative costs for  
these illustrative products  
serve as a proxy for Mis-  
souri's competitiveness on  
transport costs as a whole.

MEASUREMENT  
AND DATA  
COLLECTION:  
Transearch 2011 freight  
data was used to identify  
products representative of  
Missouri's economic drivers,  
as well as the top origins,  
destinations, and modes of  
transport. Estimates of the  
transport costs are calculat-  
ed using different external  
sources for the modes: (1)  
The 2014 American Trans-  
portation Research Institute  
(ATRI) report, An Analysis  
of the Operational Costs of  
Trucking, (2) AAA's diesel  
on-highway price data, (3)  
the Bureau of Labor Statis-  
tics wage data, (4) the Sur-  
face Transportation Board's  
(STB) Uniform Railroad  
Costing System (URCS),  
and (5) the USDA's Average  
Weekly River Barge Rates.

## ADVANCE ECONOMIC DEVELOPMENT

### *Goods movement competitiveness-7d*

Product transportation costs vary depending on factors including the efficiency, reliability, safety and modal options in a state's transportation system. Keeping transportation costs low is important to retaining businesses and attracting new business to create new employment. Reducing any of these factors could result in higher prices in local stores, and reduced competitiveness for Missouri products.

MoDOT plays an active role in keeping costs low by working with existing businesses to identify transportation barriers that reduce their competitiveness. MoDOT continually aims to find solutions for these barriers, but the stark reality of Missouri's transportation funding situation limits the agency's ability to fully respond to those needs.

Soybeans were the most valuable crop in 2014 bringing in more than \$2 billion in receipts and employing nearly 300,000 workers. A record-high harvest in Missouri moved the state from 7th to 6th largest soybean producer in the US. The Bootheel region grows approximately 40 percent of Missouri's agricultural output, with New Madrid County being the largest producer of soybeans. This crop is transported by truck to the Mississippi River and then by barge to New Orleans for international distribution. The average cost per ton from New Madrid to New Orleans rose in 2014 from \$11.95 to \$18.83. The price increase reflects record-high crop harvest combined with overall reduction in available capacity.

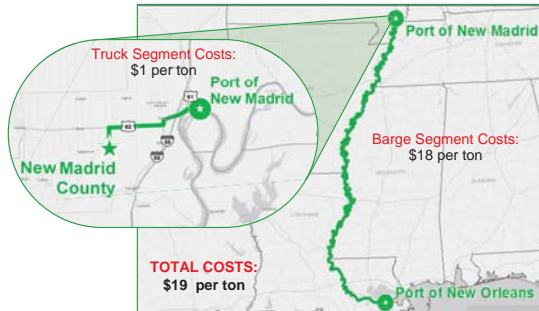
Transportation equipment is one of the state's largest exports, bringing in over \$2.7 billion to the state economy in 2013 and employing nearly 35,000 workers. Finished motor vehicles were the second most valuable in this industry at \$1.6 billion, behind motor vehicle parts. Claycomo's truck transportation cost to Toronto decreased from \$237 to \$227 this year. While the trucking cost is still relatively higher than most of the competitor states, its central location provides versatility to Ford with economical transportation to domestic markets by rail. Missouri's rail connection to Los Angeles' major international shipping port provides the lowest cost per vehicle among competitors at an average of \$291 per vehicle.

Chemical manufacturing is Missouri's second largest international export bringing in more than \$2.2 billion in 2013 and employing 7,000 Missourians, the fifth largest of all manufacturing sectors. Agricultural products are a significant sector of Missouri's chemical industry. The clusters of chemical manufacturing are located primarily in the Northeast, Northwest, and St. Louis regions. These products are shipped all over the world. The average cost of the trip from Hannibal, MO, to Los Angeles decreased to \$161, which is very competitive with the other large chemical producing states.

# ADVANCE ECONOMIC DEVELOPMENT

## SOYBEANS

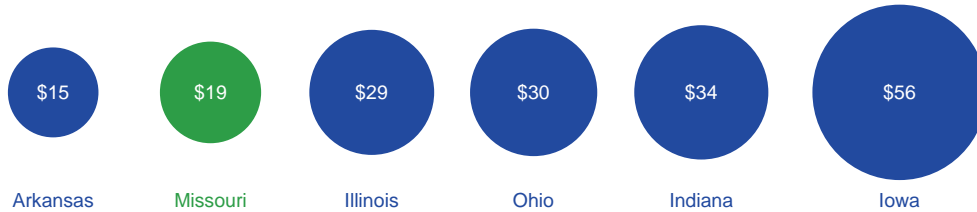
The Route from New Madrid County to New Orleans



The Route from Competitor States to New Orleans



The Cost of Shipping One Ton of Soybeans to New Orleans (largely by barge)



## FINISHED MOTOR VEHICLES

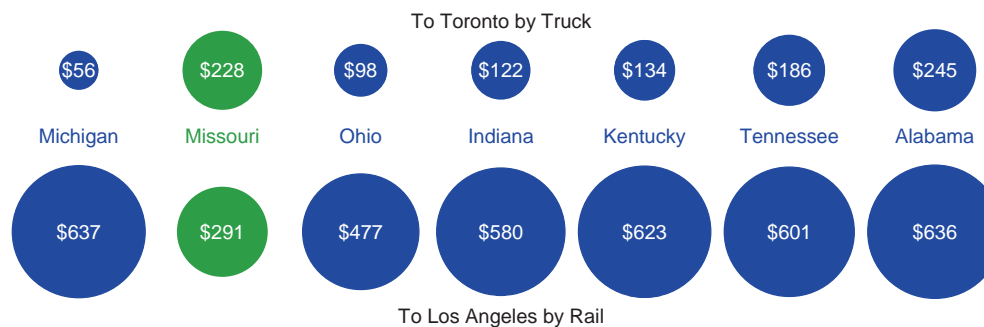
The Route from Kansas City to Toronto by Truck and Los Angeles by Rail



The Route from Competitor States to Toronto by Truck and Los Angeles by Rail



The Cost of Shipping One Motor Vehicle



## CROP PROTECTION PRODUCTS (CHEMICALS)

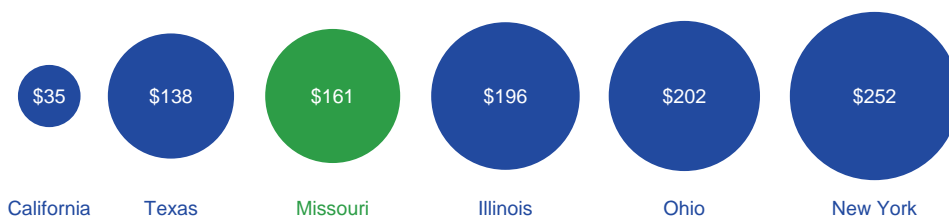
The Route from Hannibal to Los Angeles by Truck



The Route from Competitor States to Los Angeles by Truck



The Cost of Shipping One Ton of Crop Protection Products to Los Angeles by Truck



RESULT DRIVER:  
Machelle Watkins,  
Transportation Planning  
Director

MEASUREMENT  
DRIVER:  
Eric Curtit,  
Administrator  
of Railroads

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
amount of freight moved by  
Missouri's largest transpor-  
tation modes.

MEASUREMENT  
AND DATA  
COLLECTION:  
Two times a year, a freight  
tonnage estimator is used  
to calculate the amount of  
freight moved by railroads  
and highways. The estima-  
tor provides timely informa-  
tion for Missouri's primary  
freight movers. Freight data  
for aviation and waterways  
is a combination of direct  
surveys and trend analy-  
sis. This measure's data is  
estimated but provides an  
indication of current trends  
and movements.

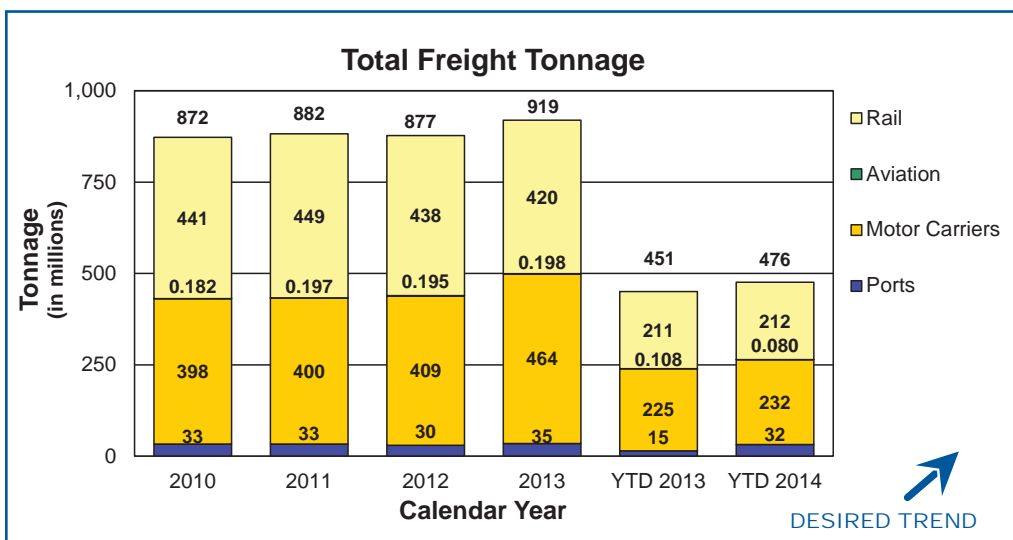
## ADVANCE ECONOMIC DEVELOPMENT

### Freight tonnage by mode-7e

Everything comes from somewhere. How it gets from place to place depends on a number of factors. These modes experience volume shifts from year to year, often based on the health of the national economy and shifts in consumer preferences. A key element to a healthy economy is a robust transportation system.

Unfortunately, current transportation funding is decreasing, making it difficult to maintain highways and bridges in their current condition. Nor can current state funding address transportation needs other than highways and bridges. Moving 919 million tons of freight a year requires thoughtful improvements of transportation facilities such as ports, railroads and airports, yet many of these needs remain underfunded.

During the first half of 2014, Missouri experienced an increase in movements as compared to the same period last year. Railroad tonnage was relatively unchanged, supported by increases in crude oil. Motor carriers hauled the most tonnage, which can be attributed to continuing increases in durable good shipments. Durable goods, such as appliances and furniture, tend to move by truck. Aviation maintained tonnage similar to previous levels. New Madrid County and Pemiscot County, which are Missouri's two largest ports, saw decreases in freight movements in the first six months of 2014, by 7 percent and 34 percent respectively. Southeast Missouri and City of St. Louis both saw increases of 65 percent and 69 percent respectively, while the Lewis County-Canton port increased its tonnage 440 percent.



**RESULT DRIVER:**  
Machelle Watkins,  
Transportation Planning  
Director

**MEASUREMENT  
DRIVER:**

Aaron Hubbard,  
Motor Carrier Services  
Project Manager

**PURPOSE OF  
THE MEASURE:**

This delay measure is proposed to be used as a Moving Ahead for Progress in the 21st Century Act national freight performance measure.

**MEASUREMENT  
AND DATA  
COLLECTION:**

Annual Hours of Truck Delay quantifies the extra time spent by commercial motor vehicles on an interstate corridor based upon a state-determined threshold. Missouri's threshold is set at 5 mph below the speed limit. Speeds below that rate indicate congestion and/or other delay factors for trucks. Missouri chose this threshold because many commercial trucks are governed at 65 mph though the posted speed limit for most of the Interstate is 70 mph. Commercial vehicle delay on the Interstate system may be caused by congestion due to factors such as traffic, severe weather, safety inspections or roadway geometrics. AHTD is composed of vehicle miles traveled by trucks, speed of travel, and the desired speed of travel.

## ADVANCE ECONOMIC DEVELOPMENT

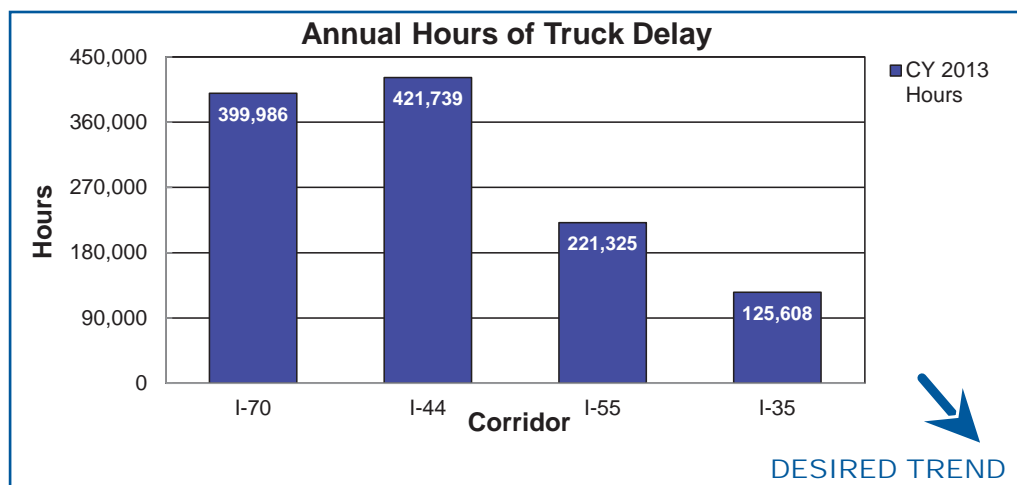
MAP-21

### *Annual hours of truck delay-7f*

Delay impacts the cost of goods on the shelf and reduces an organization's ability to compete on a global basis. American businesses require more operators and equipment to deliver goods when delays lengthen shipping time. Businesses must hold more inventory in more distribution centers to deliver products quickly when lengthier trips are unreliable and slow. Time is money. Slow traffic also affects the local economy by reducing the number of workers and job sites within easy reach of a location.

Growth in freight volumes is a major contributor to congestion in urban areas and on intercity routes. Long-distance freight movements are often a significant contributor to local congestion, and local congestion typically impedes freight to the detriment of local and distant economic activity. Unfortunately, Missouri's construction budget is falling to a point that will make it very difficult for MoDOT to address congestion factors. In fiscal year 2017, the \$325 million construction budget will not even cover the costs of keeping today's transportation system in the status quo.

On average, those shipping by truck can expect a delay of 5.3 minutes per trip on I-70, 7.1 minutes on I-44, 4.85 minutes on I-55, and 3.25 minutes on I-35. The annual cost of delay for the trucking industry on I-70 is \$34.7 million, \$36.6 million on I-44, \$19.2 million on I-55, and \$10.9 million on I-35. Given MoDOT's financial situation, delays and the cost of delay are expected to grow.



**RESULT DRIVER:**  
Machelle Watkins,  
Transportation Planning  
Director

**MEASUREMENT  
DRIVER:**  
Chuck Gohring,  
Motor Carrier Services  
Assistant Director

**PURPOSE OF  
THE MEASURE:**  
This reliability measure is proposed to be used as a Moving Ahead for Progress in the 21st Century national freight performance measure. By comparing the reliability index number for each corridor year by year, MoDOT can determine if the corridor has become less or more reliable. A lower index for a succeeding year means reliability has improved.

**MEASUREMENT  
AND DATA  
COLLECTION:**  
This measure uses the Truck Reliability Index, a ratio of the total truck travel time needed to ensure on-time arrival four out of five times to the agency-determined threshold speed of 5 mph below the speed limit. The ratio is used to gauge consistency in truck freight travel times. The data for 2013 includes the months July through December. Further guidance about data requirements and measure methodology will be forthcoming from the Federal Highway Administration.

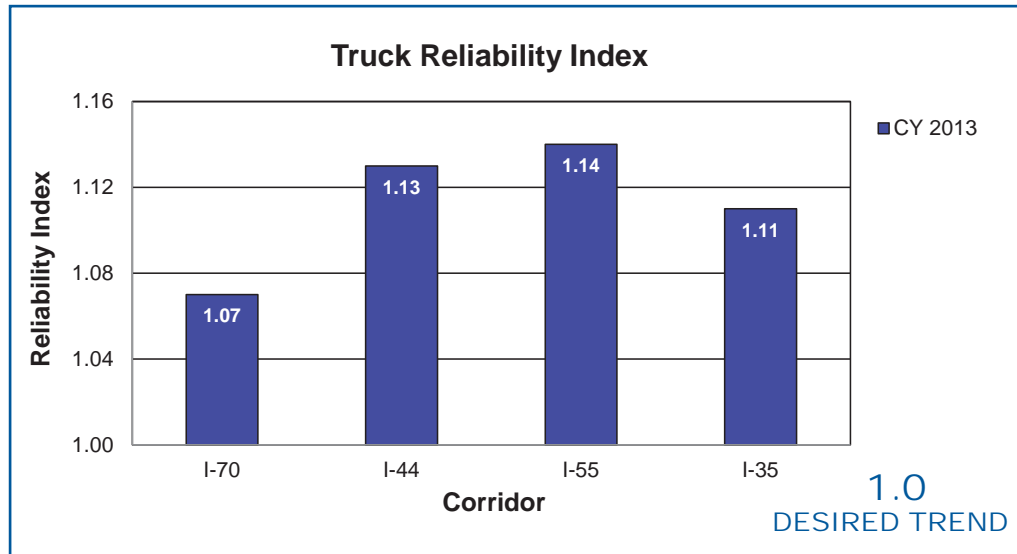
## ADVANCE ECONOMIC DEVELOPMENT

MAP-21

### *Truck reliability index-7g*

The reliable movement of goods by commercial motor vehicle is critical to the U.S. economy. The reliability of the interstate system affects the trucking industry's ability to respond to customer requirements and directly affects the cost of goods bought and sold in the United States. The Federal Highway Administration estimates the cost of transit time at \$25 to \$200 per hour, depending on the product being transported. Shippers and freight carriers require predictable travel times to control transportation costs and remain competitive. Additional costs of unexpected delays can be redistributed throughout the supply chain.

MoDOT continually seeks ways to deliver the infrastructure to support reliable trips for drivers and to help keep costs down. Many new strategies and technologies for operating highway systems are emerging that can help improve travel-time reliability, however with declining state and federal transportation funding and increasing costs to do business, MoDOT is unable to make needed reliability investments.



RESULT DRIVER:  
Machelle Watkins,  
Transportation Planning  
Director

MEASUREMENT  
DRIVER:  
Doug Hood,  
Financial Services  
Administrator

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
number of jobs created  
through MoDOT's economic  
development program.

MEASUREMENT  
AND DATA  
COLLECTION:  
Data for this measure is  
collected from a partner-  
ship development database.  
This measure is based on  
the state fiscal year – July 1  
to June 30.

## ADVANCE ECONOMIC DEVELOPMENT

### *Jobs created by projects funded through the economic development program-7h*

The Cost Share/Economic Development Program builds partnerships with local entities to pool efforts and limited resources in order to deliver state highway and bridge projects. In the past, MoDOT allocated \$45 million of Cost Share/Economic Development funds annually, based on the funding distribution formula set by the Missouri Highways and Transportation Commission. Each year, a minimum of \$5 million were set aside for projects that demonstrated economic development through job creation. MoDOT contributed up to 100 percent of the total cost for projects on the state highway system if the Missouri Department of Economic Development verifies the project creates jobs. Retail development projects were not eligible.

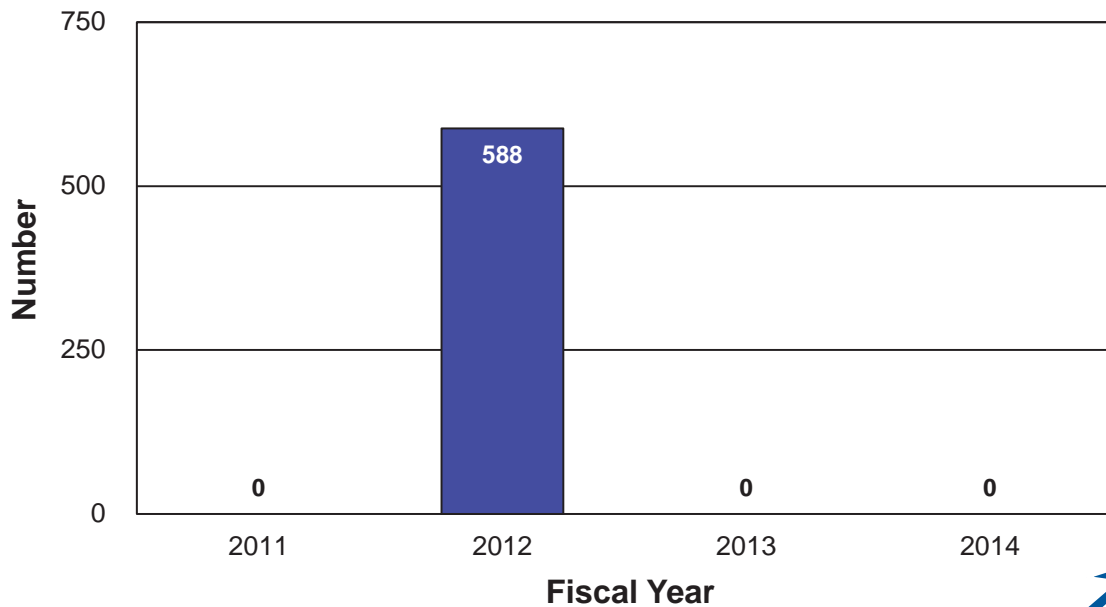
In light of a plummeting 2015-2019 construction program, the Missouri Highways and Transportation Commission suspended the Cost Share/Economic Development Program on January 8, 2014. With contractor awards dropping from just more than \$700 million in 2015 to \$325 million by 2017, MODOT will be unable to maintain the existing system, much less pursue projects that add to the system. Projects already reviewed and approved by the cost share committee are eligible to move forward; however, no additional projects will be considered for funding.

In Fiscal Year 2012, Edward Jones created 588 verified new jobs in conjunction with interchange improvements at I-270 and Dorsett Road in St. Louis County.

In Fiscal Year 2014, the following economic development partnerships were approved:

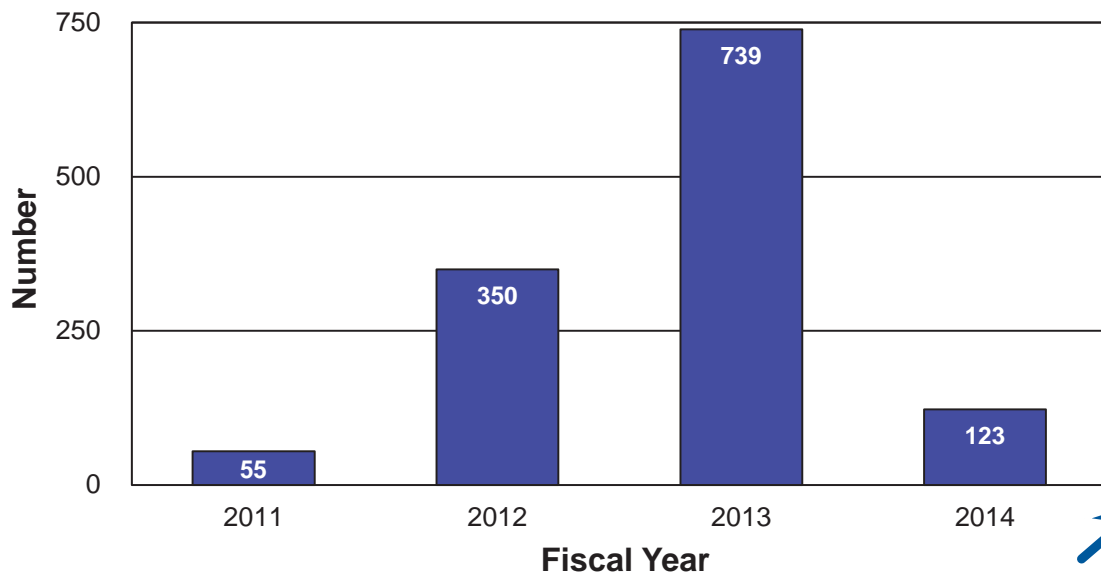
- \$4.7 million for Route 210 improvements in Clay County. The project is estimated to cost \$7.5 million and to create 39 new jobs at Adrian Steel by December 31, 2017.
- \$425,540 for Route I-70 Outer Road improvements in Montgomery and Warren Counties. The project is estimated to cost \$500,000 and to create 70 new jobs at CertainTeed by April 1, 2019.
- \$479,264 for Routes 60 & 114 intersection improvements in Stoddard County. The project is estimated to cost \$600,000 and to create 14 new jobs at Lansing Trade Group by December 31, 2016.

### Jobs Created by Projects Funded Through the Economic Development Program



 DESIRED TREND

### Economic Development Projects Approved with Estimated Future Job Creation



 DESIRED TREND

RESULT DRIVER:  
Machelle Watkins,  
Transportation Planning  
Director

MEASUREMENT  
DRIVER:  
Ida Mitchell,  
Senior Human Resources  
Specialist

PURPOSE OF  
THE MEASURE:  
This measure tracks minor-  
ity and female employment  
in MoDOT's workforce and  
compares it with availability  
data from the Missouri 2010  
Census report.

MEASUREMENT  
AND DATA  
COLLECTION:  
The SAM II database is  
used to collect data. The  
Missouri 2010 Census data  
is used as the benchmark  
for this measurement.

## ADVANCE ECONOMIC DEVELOPMENT

### *Percent of minorities and females employed-7i*

By placing the right people in the right position, MoDOT can better serve its customers and help fulfill its responsibilities to taxpayers.

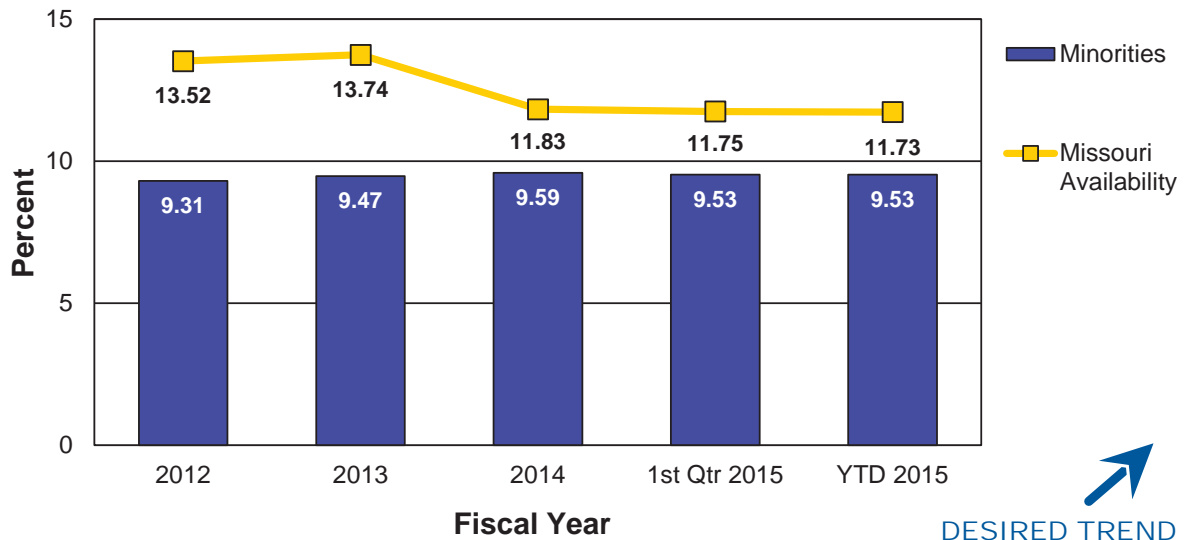
The number of minority employees decreased by 0.8 percent (483 to 479) from the first quarter of fiscal year 2015 to the second quarter of FY 2015. The number of female employees decreased by 0.2 percent from first quarter of FY 2015 to second quarter of FY 2015 (951 to 949). When compared to overall employment, the percent of females increased (18.73 to 18.86) and is still above Missouri availability of 16.09 percent. The percent of minorities stayed the same (9.53), and is below Missouri availability of 11.73 percent. Total full-time employment during this quarter decreased from 5,077 to 5,027.

During the second quarter of FY 2015, districts partnered with Lincoln University (HBCU) to offer CDL training and attended STEM classes at the University to talk to students about career opportunities at MoDOT. MoDOT also presented at the University of Missouri Science and Technology's National Society of Black Engineers chapter. A major focus this quarter has been increasing MoDOT's applicant pool with qualified minorities and females. All the regions have been very active in their respective communities talking with diverse groups about career opportunities and advertising MoDOT jobs in publications that are highly visible to minorities and females.

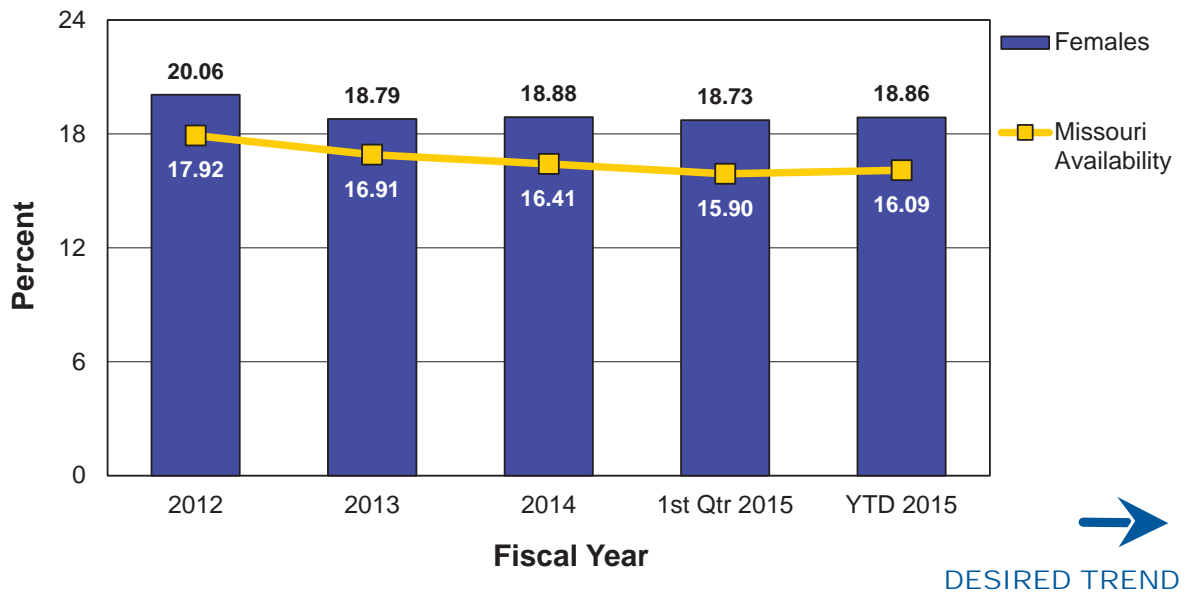


## ADVANCE ECONOMIC DEVELOPMENT

### Percent of Minorities Employed



### Percent of Females Employed



RESULT DRIVER:  
Machelle Watkins,  
Transportation Planning  
Director

MEASUREMENT  
DRIVER:  
Lester Woods, Jr.,  
External Civil Rights  
Director

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
percent of Disadvantaged  
Business Enterprise use on  
construction and engineer-  
ing projects.

MEASUREMENT  
AND DATA  
COLLECTION:  
Data is collected through  
Site Manager for each con-  
struction project. The overall  
DBE goal is a yearly target  
established by MoDOT  
and the Federal Highway  
Administration regarding the  
expected total DBE partici-  
pation on all federally-fund-  
ed construction projects.  
Individual DBE project goals  
are determined by subcon-  
tract opportunity, project  
location and available DBE  
firms that can perform the  
scope of work. DBE utili-  
zation is tracked for each  
construction project identi-  
fying the prime contractor,  
contract amount, the es-  
tablished goal and how the  
prime contractor fulfilled the  
goal. This measure is based  
on the federal fiscal year,  
which is Oct. 1 through  
Sept. 30. Collection of data  
of the DBE classifications  
began in FFY 2012.

## ADVANCE ECONOMIC DEVELOPMENT

### *Percent of disadvantaged business enterprise participa- tion on construction and engineering projects-7j*

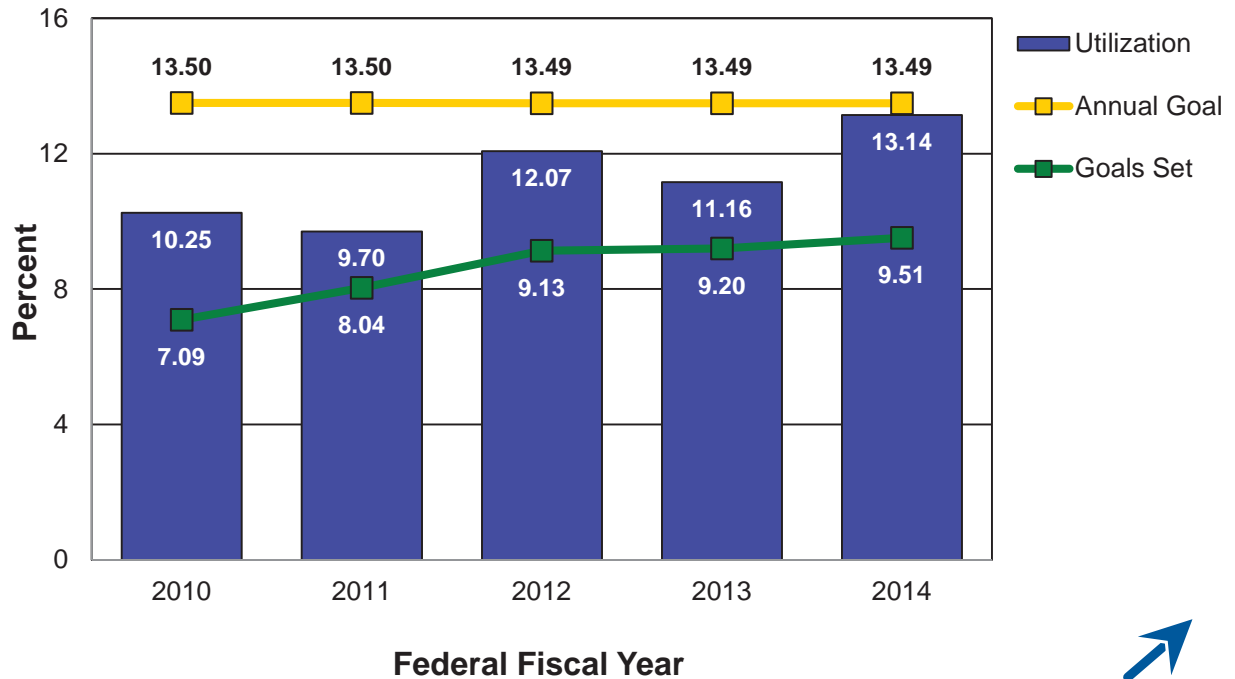
MoDOT believes it is good business to support diversity among its contrac-  
tors, subcontractors and suppliers. Contractors, subcontractors and sup-  
pliers working on construction projects that receive federal aid or federal  
financial participation are required to take reasonable steps to ensure DBEs  
have an opportunity to compete for and participate in project contracts and  
subcontracts.

The overall DBE goal for FFY 2014 is 13.49 percent. The DBE participation  
for FFY 2014 is 13.14 percent. This is a 1.98 percent increase from FFY  
2013. Of the 13.14 percent utilization, 3.76 percent is participation from mi-  
nority-owned DBE firms, 0.59 percent is participation from minority women-  
owned DBE firms and 8.79 percent is participation from women-owned DBE  
firms. The collective goals set for projects closed during this period amount-  
ed to 9.51 percent.

MoDOT continues to support diversity among its contractors, subcontract-  
ors and suppliers even as the funding available for its construction program  
declines.

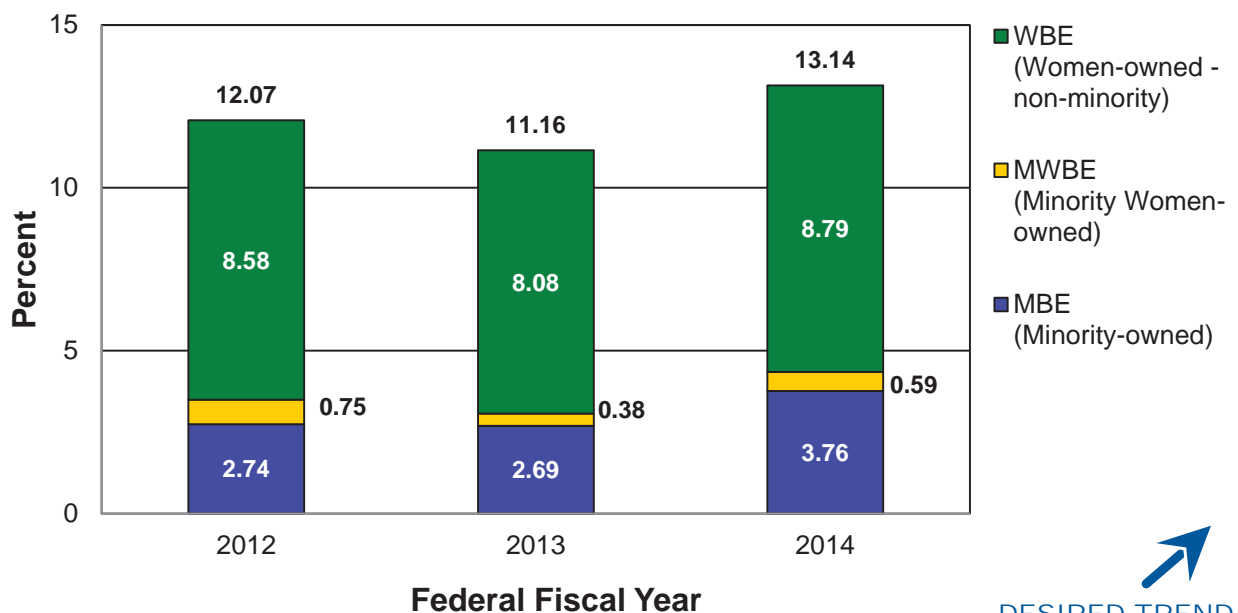


## Percent of DBE Participation



DESIRED TREND

## Percent of DBE Participation by Classification



DESIRED TREND

**RESULT DRIVER:**  
Machelle Watkins,  
Transportation Planning  
Director

**MEASUREMENT  
DRIVER:**  
Rebecca Jackson,  
General Services  
Manager

**PURPOSE OF  
THE MEASURE:**  
This measure tracks the department's non-program spending with certified minority, women, and disadvantaged business enterprises (MWDBE). Vendors may be certified through the Office of Administration as well as the Missouri Regional Certification Committee. Included in these expenditures are items such as materials, equipment, tools and supplies. Program spending, including construction, design consultants, local agencies, highway safety and multimodal programs and exempted activities such as utilities, postage, organizational memberships, conferences and travel are excluded from total dollars spent.

**MEASUREMENT  
AND DATA  
COLLECTION:**  
Data is obtained from the statewide financial accounting system expenditure reports and United Missouri Bank purchasing card reports. Certified vendors are maintained in a statewide procurement vendor database.

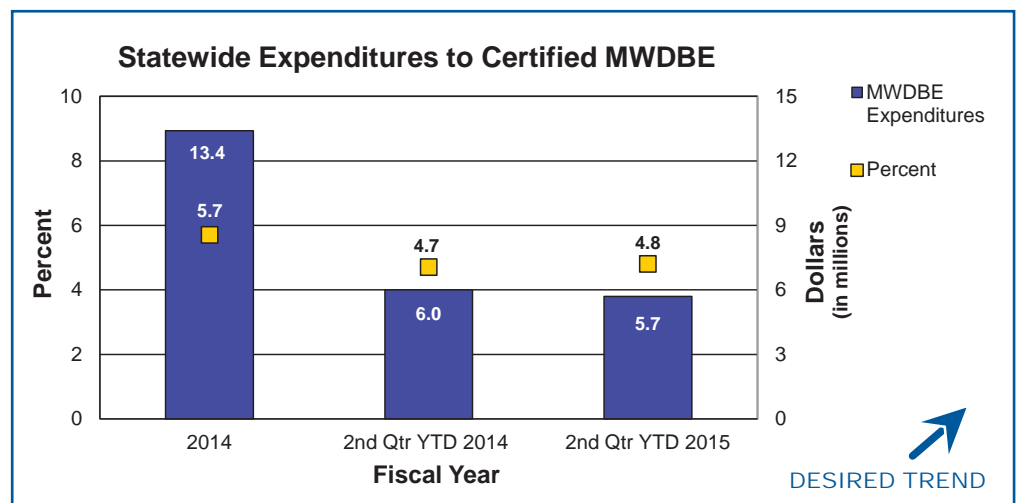
## ADVANCE ECONOMIC DEVELOPMENT

### *Expenditures made to certified minority, women and disadvantaged business enterprises-7k*

Ensuring MoDOT spending is representative of Missouri communities' advances economic development for all business enterprises. Historical data helps identify opportunities for improvement. Improvement efforts include training staff who have procurement authority, outreach to MWDBE vendors to encourage them to become certified and focused inclusion efforts.

Fiscal year 2015 second quarter results indicate a minimal decrease in MWDBE disbursements compared to FY 2014. The department remains relatively stable with MWDBE disbursements despite an 8 million decrease in total non-construction goods and services expenditures comparing second quarter FY 2015 to FY 2014.

With declining state and federal transportation funding and the increasing costs to do business, the dollars spent with all vendors, including MWDBE vendors, are expected to fall. This measure will continue to track the department's efforts to ensure the vendor pool is representative of the business community as a whole.



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